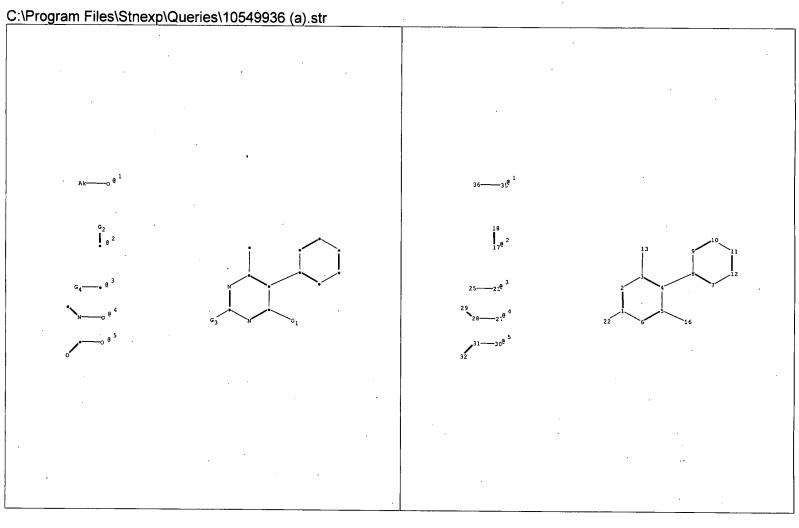
EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5265	((544/242,334,335) or (514/256)). CCLS.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2007/09/30 15:39

9/30/2007 3:39:14 PM



chain nodes:

16 17 18 22 23 25 27 28 29 30 31 32 35 36

ring nodes:

1 2 3 4 5 6 7 8 9 10 11 12

ring/chain nodes:

13

chain bonds:

1-22 3-13 4-8 5-16 17-18 23-25 27-28 28-29 30-31 31-32 35-36

ring bonds:

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

exact/norm bonds:

1-22 5-16 17-18 23-25 27-28 28-29 30-31 31-32 35-36

exact bonds:

3-13 4-8

normalized bonds:

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12

isolated ring systems:

containing 1: 7:

G1:Cl,Br,F,I,CN,Ak,[*1]

G2:C,N,S

G3:CN,N,[*2],[*3],[*4],[*5]

G4:0,N

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLAS\$16:CLAS\$ 17:CLAS\$18:CLAS\$22:CLAS\$23:CLAS\$25:CLAS\$27:CLAS\$28:CLAS\$29:CLAS\$30:CLAS\$31:CLAS\$32:CLAS\$35:CLAS\$ 36:CLAS\$

=>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 1839

L1 SCREEN CREATED

=> screen 2016 OR 2026 OR 2039 OR 2045 OR 2047

L2 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\10549936.str

chain nodes :
16 17 18 22 23 25
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12
ring/chain nodes :
13
chain bonds :
1-22 3-13 4-8 5-16 17-18 23-25
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-22 5-16 17-18 23-25
exact bonds :
3-13 4-8
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :

containing 1 : 7 :

G1:C,O,Cl,Br,F,I,CN

G2:C,N,S

G3:CN,O,N,[*1],[*2]

G4:0, N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:CLASS 16:CLASS 17:CLASS 18:CLASS 22:CLASS 23:CLASS 25:CLASS

L3 STRUCTURE UPLOADED

=> que L3 AND L1 NOT L2

L4 QUE L3 AND L1 NOT L2

=> d 14

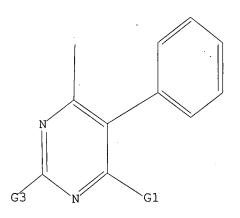
L4 HAS NO ANSWERS

L1 SCR 1839

L2 SCR 2016 OR 2026 OR 2039 OR 2045 OR 2047

L3 STR

G4 - 2



G1 C, O, Cl, Br, F, I, CN

G2 C, N, S

G3 CN,O,N,[@1],[@2]

G4 O, N

Structure attributes must be viewed using STN Express query preparation. L4 $\,$ QUE $\,$ L3 AND L1 NOT L2 $\,$

=> s 14 sss sam SAMPLE SEARCH INITIATED 13:46:11 FILE 'REGISTRY'

10/549,936

SAMPLE SCREEN SEARCH COMPLETED - 67 TO ITERATE

100.0% PROCESSED

67 ITERATIONS

18 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

849 TO

1831

PROJECTED ANSWERS:

,106 TO

18 SEA SSS SAM L3 AND L1 NOT L2

=> =>Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 1839

L6 SCREEN CREATED

=> screen 2016 OR 2026 OR 2039 OR 2045 OR 2047

L7 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\10549936 (a).str

chain nodes :

10/549,936

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16 17 18 22 23 25 27 28 29 30 31 32 35 36
ring nodes :
1 2 3 4 5 6 7 8
                      9 10 11 12
ring/chain nodes :
chain bonds :
1-22 3-13 4-8 5-16 17-18 23-25 27-28 28-29 30-31
                                                       31-32 35-36
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
exact/norm bonds :
1-22 5-16 17-18 23-25 27-28 28-29 30-31 31-32 35-36
exact bonds :
3-13 4-8
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12
isolated ring systems :
containing 1 : 7 :
G1:C1, Br, F, I, CN, Ak, [*1]
G2:C,N,S
G3:CN, N, [*2], [*3], [*4], [*5]
G4:0, N
Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:CLASS 16:CLASS 17:CLASS 18:CLASS 22:CLASS 23:CLASS
25:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS 32:CLASS 35:CLASS
36:CLASS
L8
       STRUCTURE UPLOADED
=> que L8 AND L6 NOT L7
     QUE L8 AND L6 NOT L7
Ĺ9
=> d 19
L9 HAS NO ANSWERS .
L6
               SCR 1839
L7
               SCR 2016 OR 2026 OR 2039 OR 2045 OR 2047
· L8
               STR
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
Structure attributes must be viewed using STN Express query preparation.
               QUE L8 AND L6 NOT L7
=> s 19 sss sam
SAMPLE SEARCH INITIATED 13:54:16 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -
                                    340 TO ITERATE
100.0% PROCESSED
                     340 ITERATIONS
                                                              7 ANSWERS
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Page 4

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

5694 TO

PROJECTED ANSWERS:

7 TO

7906 298

7 SEA SSS SAM L8 AND L6 NOT L7

=> => s 19 sss ful

FULL SEARCH INITIATED 13:55:12 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 7730 TO ITERATE

100.0% PROCESSED 7730 ITERATIONS

279 ANSWERS

SEARCH TIME: 00.00.01

L11

279 SEA SSS FUL L8 AND L6 NOT L7

=> => s 111

L12

52 L11

=> d 112 1-52 bib, ab, hitstr

10/549,936

L12 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:205920 CAPLUS

DN 146:441554

TI Reaction of analogs of natural isoflavonoids with amidines

AU Frasinyuk, M. S.; Bondarenko, S. P.; Khilya, V. P.

CS Institute of Bioorganic and Petroleum Chemistry, National Academy of Sciences of Ukraine, Kiev, 0209, Ukraine

SO Chemistry of Natural Compounds (2006), 42(6), 673-676 CODEN: CHNCA8; ISSN: 0009-3130

PB Springer

DT Journal

LA English

AB Recyclization of the chromone ring in a series of analogs of natural isoflavonoids by reaction with amidines was studied. E.g., pyrimidines I (R = NH2, H, Me) were prepared in 85, 82, and 74% yields, resp., by reacting isoflavanoid II with the corresponding amidines RC(:NH)NH2 in DMF using freshly calcined potash at 75-80° for 4-20 h followed by treatment of the reaction mixture with dilute HCl to adjust the pH to 6.

IT 850728-98-2P 877808-42-9P 900262-61-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(reaction of analogs of natural isoflavonoids with amidines)

RN 850728-98-2 CAPLUS

CN Phenol, 2-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-5-[(2-methyl-2-propen-1-yl)oxy]- (CA INDEX NAME)

$$\begin{array}{c} \text{NH2} & \text{CH2} \\ \text{N} & \text{O-CH2-C-Me} \\ \\ \text{OMe} & \\ \end{array}$$

RN 877808-42-9 CAPLUS

CN Phenol, 2-[2-amino-5-(4-methoxyphenyl)-6-(trifluoromethyl)-4-pyrimidinyl]-5-methoxy- (CA INDEX NAME)

RN 900262-61-5 CAPLUS

CN Phenol, 2-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-5-methoxy-(CA INDEX NAME)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/549,936

- L12 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2006:188882 CAPLUS
- DN 144:432768
- TI Optimization of 2,4-diaminopyrimidines as GHS-R antagonists: Side chain exploration
- AU Liu, Bo; Liu, Mei; Xin, Zhili; Zhao, Hongyu; Serby, Michael D.; Kosogof, Christi; Nelson, Lissa T. J.; Szczepankiewicz, Bruce G.; Kaszubska, Wiweka; Schaefer, Verlyn G.; Falls, H. Douglas; Lin, Chun Wel; Collins, Christine A.; Sham, Hing L.; Liu, Gang
- CS Metabolic Disease Research, Global Pharmaceutical Research and Development, Abbott Laboratories, Abbott Park, IL, 60064-6098, USA
- SO Bioorganic & Medicinal Chemistry Letters (2006), 16(7), 1864-1868 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier B.V.
- DT Journal
- LA English
- OS CASREACT 144:432768
- AB The synthesis and structure-activity relationships of the 4- and 6-substituents of 2,4-diaminopyrimidine-based growth hormone secretagogue receptor (GHS-R) antagonists are described. Diaminopyrimidines I [R = 2-norbornenyl, 2-tetrahydrofuranyl] exhibit potent GHS-R antagonism and good selectivity (.apprx.1000-fold) against dihydrofolate reductase.
- IT 861103-26-6P 861103-29-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (preparation of (methanesulfonylbenzyl)aminophenyl diaminopyrimidines as growth hormone secretagogue receptor antagonists)
- RN 861103-26-6 CAPLUS
- CN Ethanol, 2-[[2-amino-6-ethyl-5-(4-nitrophenyl)-4-pyrimidinyl]oxy]- (CA INDEX NAME)

- RN 861103-29-9 CAPLUS
- CN 2-Pyrimidinamine, 4-chloro-6-ethyl-5-(4-nitrophenyl)- (CA INDEX NAME)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     2006:54920 CAPLUS
DN
     144:128999
TI
      Preparation of arylpyrimidines as agrochemical fungicides.
     Rheinheimer, Joachim; Schieweck, Frank; Grote, Thomas; Blettner, Carsten;
IN
     Schwoegler, Anja; Gewehr, Markus; Grammenos, Wassilios; Huenger, Udo;
     Mueller, Bernd; Schaefer, Feter; Dietz, Jochen; Speakman, John-Bryan;
     Scherer, Maria; Strathmann, Siegfried; Schoefl, Ulrich; Stierl, Reinhard
PΑ
     BASF Aktiengesellschaft, Germany
                                                       Commen Jus
SO
     PCT Int. Appl., 99 pp.
     CODEN: PIXXD2
DT
     ∉atent े
LA
     German
FAN. CNT 1
      PATENT NO.
                           KIND
                                                APPLICATION NO.
                                                                          DATE
                            ____
                                                -----
PΙ
     WO 2006005571
                            Α1
                                   20060119
                                                WO 2005-EP7517
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              CN, CO, CR, CU, CZ, DE, DB, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
              LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
              NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
              SL, SM; SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,
              ZA, ZM, ZW
          RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
              IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
              CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
              GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM
     EP 1768972
                            Α1
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                                                EP 2005-758019
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     CN 1984902
PRAI DE 2004-102004034197 A
                                   20040714
     WO 2005-EP7517
                                   20050712
                             W
     MARPAT 144:128999
OS
·AB
     Title compds. [I; Y = O, S; N = substituted) alkyl, alkenyl, alkynyl,
     cycloalkyl, alkylamino; R3 = halo, cyano, N3, (substituted) alkyl,
     alkenyl, alkynyl, cycloalkyl, alkoxy, alkenyloxy, alkynyloxy, alkylthio,
     alkylamino; R4 = 5-6 membered (aromatic) mono- or bicyclic heterocyclyl; B = Ph, 5-6 membered heteroaryl; L = halo, cyano, OCN, NO2, alkyl, alkenyl,
     alkynyl, alkoxy, alkenyloxy, alkynyloxy, cycloalkyl, cycloalkenyl, cycloalkoxy, cycloalkenyloxy, acyl], were prepared Thus, pyrazole in DMF
     was stirred 1 h with NaH in DMF at 0-5° and the resulting solution was
     added to 4-chloro-6-isopropoxy-2-methylsulfonyl-5-(2,4,6-
      trifluorophenyl)pyrimidine (preparation given) in DMF over 20 min. followed by
      stirring overnight to give 4-chloro-6-isopropoxy-2-(pyrazol-1-yl)-5-(2,4,6-
      trifluorophenyl)pyrimidine. Numerous I at 250 ppm reduced Alternaria
      solani infection of tomato plants to ≤20%, vs. 90% for untreated
     controls.
IT
      873682-70-3P 873682-72-5P 873682-77-0P
      873682-90-7P 873682-98-5P 873682-99-6P
      873683-00-2P 873683-01-3P 873683-02-4P
      873683-03-5P 873683-04-6P 873683-05-7P
      873683-06-8P 873683-07-9P 873683-08-0P
      873683-09-1P 873683-10-4P 873683-11-5P
      873683-12-6P
     RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
      (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
```

(Uses)

(preparation of arylpyrimidines as agrochem. fungicides)

RN 873682-70-3 CAPLUS

CN 2-Pyrimidinecarbonitrile, 5-(2,4-difluorophenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873682-72-5 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2,4-difluorophenyl)-N-methoxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873682-77-0 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2,4-difluorophenyl)-N-hydroxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873682-90-7 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2,4-dichlorophenyl)-N-methoxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873682-98-5 CAPLUS

CN 2-Pyrimidinecarbonitrile, 5-(2-chloro-4-fluorophenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873682-99-6 CAPLUS

CN 2-Pyrimidinecarbonitrile, 5-(2-chloro-4-methoxyphenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-00-2 CAPLUS

CN 2-Pyrimidinecarbonitrile, 5-(2-chloro-4-fluorophenyl)-4-ethyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-01-3 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-fluorophenyl)-N-methoxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-02-4 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-fluorophenyl)-N-hydroxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-03-5 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(2-chloro-4-fluorophenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-04-6 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-fluorophenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-05-7 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-methoxyphenyl)-N-methoxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-06-8 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-methoxyphenyl)-N-hydroxy-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-07-9 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(2-chloro-4-methoxyphenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-08-0 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-methoxyphenyl)-4-methyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-09-1 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-fluorophenyl)-4-ethyl-N-methoxy-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-10-4 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-fluorophenyl)-4-ethyl-N-hydroxy- 6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-11-5 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(2-chloro-4-fluorophenyl)-4-ethyl-6-(1-methylethoxy)- (CA INDEX NAME)

RN 873683-12-6 CAPLUS

CN 2-Pyrimidinecarboximidamide, 5-(2-chloro-4-fluorophenyl)-4-ethyl-6-(1-methylethoxy)- (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 4 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
L12
     2005:1200349 CAPLUS
AN
DN
     143:460175
TΙ
     Preparation of tetracyclic inhibitors of Janus kinases for treating
     immune-related diseases and cancer
ΙN
     Rodgers, James D.; Robinson, Darius J.; Arvanitis, Argyrios G.; Maduskuie,
     Thomas P., Jr.; Shepard, Stacey; Storace, Louis; Wang, Heisheng; Rafalski,
     Maria; Jalluri, Ravi K.; Combs, Andrew P.; Crawley, Matthew L.
PΑ
     Incyte Corporation, USA
SO
     PCT Int. Appl., 201 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                         KIND
                                 DATE
                                             APPLICATION NO.
     _____
                         ____
                                             ______
PΙ
     WO 2005105814 .
                          Α1
                                20051110
                                             WO 2005-US14494
             AE, AG, AL, AM, AT
                                 AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,
             NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
             SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
             ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     US 2006106020
                          Α1
                                /20060518
                                             US 2005-115702
                                                                     20050427
PRAI US 2004-566142P
                          P
                                 20040428
     US 2004-626111P
                          Ρ
                                 20041108
     MARPAT 143:460175
OS
     The invention is related to tetracyclic compds. of formula (I) [X, Y, Z, W
AB
     = independently N, NO, CH and derivs.; ring A = N-substituted-2-pyridinone
     fused in 3 in 4 position, or 5 and 6 position, 3-substituted-4-pyrimidone
     fused in 5 and 6 position, etc.; B = (un)substituted imidazole fused in 4
     and 5 position, thiazole fused in 4 and 5 position, etc.] and their
     pharmaceutically acceptable salts or prodrugs, that modulate, especially
     inhibit, the activity of Janus kinases. For example, II●TFA was
     prepared in 4 steps from 9-fluoro-1-methoxybenzo[f]quinazolin-6-ol.
     Selected I showed an IC50 of 10\mu M or less for the inhibition of JAK1
     and/or JAK2, and/or JAK3 in an in vitro assay. Thus, I are useful in the
     treatment of diseases related to activity of Janus kinases including, for
     example, immune-related diseases and cancer.
ΙT
     868993-18-4P, Di-tert-Butyl [5-[2-[(diethylamino)carbonyl]-5-
     fluorophenyl]-4-methoxy-6-methylpyrimidin-2-yl]imidodicarbonate
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate; preparation of tetracyclic inhibitors of Janus kinases for
        treating immune-related diseases and cancer)
RN
     868993-18-4 CAPLUS
CN
     Imidodicarbonic acid, [5-[2-[(diethylamino)carbonyl]-5-fluorophenyl]-4-
     methoxy-6-methyl-2-pyrimidinyl]-, bis(1,1-dimethylethyl) ester (9CI) (CA
```

INDEX NAME)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT .

L12 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:698362 CAPLUS

DN 143:172891

TI Preparation of diaminopyrimidines as growth hormone secretagogue receptor (GHS-R) antagonists

IN Kosogof, Christi; Liu, Bo; Liu, Gang; Liu, Mei; Nelson, Lissa T. J.; Serby, Michael D.; Sham, Hing L.; Szczepankiewicz, Bruce G.; Xin, Zhili; Zhao, Hongyu

PA USA

SO U.S. Pat. Appl. Publ., 63 pp. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

-	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	,				
ΡI	US 2005171131	A1	20050804	US 2004-947823	20040923
	US 2005171132	A1	20050804	US 2004-948042	20040923
PRAI	US 2003-506663P	P	20030926		

OS MARPAT 143:172891

Title compds. I [A = (hetero)aryl, heterocycle; R2 = alkenyl, alkenyloxyalkyl, alkoxy, alkoxyalkoxy, etc.; R = H, alkenyl, alkenyloxy, etc.; n = 1-4; X = O, amino, CH2NH; R3 = H, alkenyl, alkoxy, etc.] are prepared For instance, 5-[4-[(4-chlorobenzyl)amino]phenyl]-6-ethylpyrimidine-2,4-diamine is prepared in 4 steps from 4-nitrophenylacetonitrile, propionyl chloride, guanidine hydrochloride and 4-chlorobenzaldehyde. Compds. of the present invention are found to antagonize the function of ghrelin in a range of 0.001 μM to about 0.1 μM and inhibit dihydrofolate reductase in a range of about 0.0001 μM to about 0.1 μM. I are useful in the treatment of disorders regulated by the action of ghrelin receptor, including Prader-Willi syndrome, eating disorder, weight gain, weight-loss maintenance following diet and exercise, obesity, and disorders associated with obesity such as noninsulin dependent diabetes mellitus.

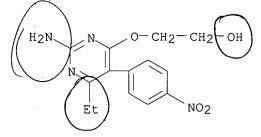
IT 861103-26-6P, 2-[2-Amino-6-ethyl-5-(4-nitrophenyl)pyrimidin-4-yloxy]ethanol 861103-29-9P, 4-Chloro-6-ethyl-5-(4-nitrophenyl)pyrimidin-2-ylamine

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of diaminopyrimidines as growth hormone secretagogue receptor (GHS-R) antagonists)

RN 861103-26-6 CAPLUS

CN Ethanol, 2-[[2-amino-6-ethyl-5-(4-nitrophenyl)-4-pyrimidinyl]oxy]- (CA INDEX NAME)



RN 861103-29-9 CAPLUS

CN 2-Pyrimidinamine, 4-chloro-6-ethyl-5-(4-nitrophenyl)- (CA INDEX NAME)

10/549,936

```
ANSWER 6 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
L12
     2004:1127093 CAPLUS
ΑN
     142:74591
DN
ΤI
     Preparation of 2-arylcarbonyl- and 2-heteroarylcarbonylpyrimidine
     derivatives as cannabinoid receptor ligands
ΤN
     Dow, Robert L.
     Pfizer Inc., USA
PΑ
                                                                     Tuterreing

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20040513

regerne
SO
     U.S. Pat. Appl. Publ., 44 pp.
     CODEN: USXXCO
DT
     Patent
LA
     English
FAN.CNT 2
     PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                          ____
     US 2004259887
PΙ
                           A1
                                  20041223
                                              US 2004-846963
PRAI US 2003-479746P
                          Ρ
                                  20030618
OS
     MARPAT 142:74591
     The title compds. (I) [wherein R1, R2 = independently aryl or heteroaryl,
AΒ
     where said aryl and said heteroaryl moieties are optionally substituted
     with one or more substituents, provided that R1 and R2 are not both a
     monosubstituted C1-4 alkoxyphenyl; R3 = H, C1-4 alkyl, or halo-substituted
     C1-4 alkyl; R4 = (NH) nN (R4a) (R4a') (where n = 0 or 1; R4a = H or
     optionally substituted C1-8 alkyl; R4b' = C1-8 alkyl, aryl, heteroaryl,
     aryl-C1-4 alkyl, partially or fully saturated C3-10 cycloalkyl,
     heteroary1-C1-3 alky1, 5- to 6-membered lactone, 5- to 6-membered lactam,
     3- to 6-membered partially or fully saturated heterocycle, where said group is
     optionally substituted with one or more substituents; or R4a and R4a'
     taken together with the nitrogen to which they are attached form an
     optionally substituted 5- to 8-membered heterocycle)], pharmaceutically acceptable salts thereof, prodrugs of said compds. or said salts, or
     solvates or hydrates of said compds., said salts or said prodrugs are
     prepared These compds. act as cannabinoid receptor ligands and are useful
     in the treatment of disease, condition or disorder modulated by a
     cannabinoid receptor antagonist which is selected from the group
     consisting of eating disorders, weight loss, obesity, depression, atypical
     depression, bipolar disorders, psychoses, schizophrenia, behavioral
     addictions, suppression of reward- related behaviors, substance abuse,
     addictive disorders, impulsivity, alcoholism, tobacco abuse, dementia,
     sexual dysfunction in males, seizure disorders, epilepsy, inflammation,
     gastrointestinal disorders, attention deficit activity disorder,
     Parkinson's disease, and type II diabetes. Thus, a stirred slurry of
     5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)pyrimidine-2-carbonyl chloride
```

chromatog. to give 43 mg 1-[1-[[5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)pyrimidin-2-yl]carbonyl]-4-phenylpiperidin-4-yl]ethanone. 811446-97-6P 811446-98-7P 811447-00-4P

mL) was cooled to 5° and treated dropwise with Et3N (57 mg in 0.5

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(50 mg) and 4-acetyl-4-phenylpiperidine hydrochloride (45 mg) in CH2Cl2 (1 mg)

ambient temperature and then allowed react for 1 h, concentrated, and purified

mL in CH2Cl2) to produce an orange solution which was allowed to warm to

(intermediate; preparation of arylcarbonyl- and heteroarylcarbonylpyrimidine derivs. as cannabinoid receptor antagonists for treating diseases, conditions or disorders modulated by cannabinoid receptor antagonists)

RN 811446-97-6 CAPLUS

by

ΙT

CN Pyrimidine, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-2-(methoxymethyl)-6-methyl- (CA INDEX NAME)

RN 811446-98-7 CAPLUS

CN 2-Pyrimidinemethanol, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-(CA INDEX NAME)

RN 811447-00-4 CAPLUS

CN 2-Pyrimidinecarboxylic acid, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl- (CA INDEX NAME)

IT 811447-77-5P 811448-76-7P 811448-77-8P

811448-78-9P 811448-79-0P 811448-80-3P

811448-81-4P 811448-82-5P 811448-83-6P

811448-84-7P 811448-85-8P 812698-60-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylcarbonyl- and heteroarylcarbonylpyrimidine derivs. as

cannabinoid receptor antagonists for treating diseases, conditions or disorders modulated by cannabinoid receptor antagonists) .

RN 811447-77-5 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-N-cyclohexyl-4-methyl-6-(4-pyridinyl)- (CA INDEX NAME)

RN 811448-76-7 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-N-cyclohexyl-4-(2,4-dichlorophenyl)-6-methyl- (CA INDEX NAME)

RN 811448-77-8 CAPLUS

CN 2-Pyrimidinecarboxamide, N-cyclohexyl-4-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-6-methyl- (CA INDEX NAME)

RN 811448-78-9 CAPLUS

CN 2-Pyrimidinecarboxamide, 4-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-6-methyl-N-(phenylmethyl)- (CA INDEX NAME)

RN 811448-79-0 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-N-(phenylmethyl)- (CA INDEX NAME)

RN 811448-80-3 CAPLUS

CN 2-Pyrimidinecarboxamide, N-(1R,2R,4S)-bicyclo[2.2.1]hept-2-yl-5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 811448-81-4 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-

methyl-N-[(1R)-1-phenylethyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 811448-82-5 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(3-chloro-4-pyridinyl)-N-cyclohexyl-6-methyl- (CA INDEX NAME)

RN 811448-83-6 CAPLUS

CN 2-Pyrimidinecarboxamide, N-(1R,2R,4S)-bicyclo[2.2.1]hept-2-yl-5-(4-chlorophenyl)-4-(3-chloro-4-pyridinyl)-6-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 811448-84-7 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(3-chloro-4-pyridinyl)-6-methyl-N-(phenylmethyl)- (CA INDEX NAME)

- RN 811448-85-8 CAPLUS
- CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-methyl-N-(phenylmethyl)-6-(4-pyridinyl)- (CA INDEX NAME)

- RN 812698-60-5 CAPLUS
- CN 2,4-Pyrimidinedicarboxamide, 6-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N2,N2-bis(phenylmethyl)- (CA INDEX NAME)

```
ANSWER 7 OF 52 CAPLUS
L12
                             COPYRIGHT 2007 ACS on STN
     2004:1124645 CAPLUS
ΑN
     142:56347
DN .
TΤ
     Preparation of pyrimidine derivatives as cannabinoid receptor ligands
     Dow, Robert L.
IN
PA
     Pfizer Products Inc., USA
SO
     PCT Int. Appl., 94 pp.
     CODEN: PIXXD2
                                                                           Same
DT
     Patent
LA
     English
FAN.CNT 2
     PATENT NO.
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                                DATE
                                             APPLICATION NO.
                                                                    DATE
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PΙ
     WO 2004110453
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
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             SN, TD, TG
     CA 2529068
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                                                                    20040609
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             IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
     BR 2004011617
                          Α
                                20060808
                                             BR 2004-11617
                                                                    20040609
                          Τ
     JP 2006527759
                                20061207
                                             JP 2006-516548 ·
                                                                    20040609
     MX 2005PA13282
                          Ά
                                20060309
                                             MX 2005-PA13282
                                                                    20051207
PRAI US 2003-479746P
                          Ρ
                                20030618
     WO 2004-IB1971
                          W
                                20040609
OS
     CASREACT 142:56347; MARPAT 142:56347
     Title compds. I [R1-2 = (hetero)aryl; R3 = H, (halo)alkyl; R4 = amino] are
AΒ
     prepared For instance, II is prepared from 5-(4-chlorophenyl)-4-(2,4-
     dichlorophenyl)pyrimidine-2-carbonyl chloride (preparation given) and
     4-acetyl-4-phenylpiperidine hydrochloride. I are cannabinoid receptor;
     example compds. exhibit binding to the CB-1 receptor in the range of
     0.1-10000 nM. I are useful for the treatment of a disease, condition or
     disorder which is modulated by a cannabinoid receptor antagonist.
     811447-72-0P 811447-77-5P, 5-(4-Chlorophenyl)-4-methyl-6-
     (pyridin-4-yl) pyrimidine-2-carboxylic acid N-(cyclohexyl) amide
     811448-76-7P, 5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)-6-
     methylpyrimidine-2-carboxylic acid cyclohexylamide 811448-77-8P,
     4-(2,4-Dichlorophenyl)-5-(4-fluorophenyl)-6-methylpyrimidine-2-carboxylic
     acid cyclohexylamide 811448-78-9P, 4-(2,4-Dichlorophenyl)-5-(4-
     fluorophenyl)-6-methylpyrimidine-2-carboxylic acid benzylamide
     811448-79-0P, 5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)-6-
     methylpyrimidine-2-carboxylic acid benzylamide 811448-80-3P
     811448-81-4P, 5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)-6-
     methylpyrimidine-2-carboxylic acid N-((1R)-1-phenylethyl)amide
     811448-82-5P, 5-(4-Chlorophenyl)-4-(3-chloropyridin-4-yl)-6-
     methylpyrimidine-2-carboxylic acid cyclohexylamide 811448-83-6P
     811448-84-7P, 5-(4-Chlorophenyl)-4-(3-chloropyridin-4-yl)-6-
     methylpyrimidine-2-carboxylic acid benzylamide 811448-85-8P,
     5-(4-Chlorophenyl)-4-methyl-6-(pyridin-4-yl)pyrimidine-2-carboxylic acid
     N-benzylamide
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
```

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrimidine derivs. as cannabinoid receptor ligands) 811447-72-0 CAPLUS

CN 2,4-Pyrimidinedicarboxamide, 6-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N,N'-bis(phenylmethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & O \\
 & C \\
 & C \\
 & N \\
 & O \\$$

RN 811447-77-5 CAPLUS

RN

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-N-cyclohexyl-4-methyl-6-(4-pyridinyl)- (CA INDEX NAME)

RN 811448-76-7 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-N-cyclohexyl-4-(2,4-dichlorophenyl)-6-methyl- (CA INDEX NAME)

RN 811448-77-8 CAPLUS

CN 2-Pyrimidinecarboxamide, N-cyclohexyl-4-(2,4-dichlorophenyl)-5-(4-

fluorophenyl)-6-methyl- (CA INDEX NAME)

RN 811448-78-9 CAPLUS

CN 2-Pyrimidinecarboxamide, 4-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-6-methyl-N-(phenylmethyl)- (CA INDEX NAME)

RN 811448-79-0 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-N-(phenylmethyl)- (CA INDEX NAME)

RN 811448-80-3 CAPLUS

CN 2-Pyrimidinecarboxamide, N-(1R,2R,4S)-bicyclo[2.2.1]hept-2-yl-5-(4-

chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-, rel- (CA INDEX NAME)
Relative stereochemistry.

RN 811448-81-4 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-N-[(1R)-1-phenylethyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 811448-82-5 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(3-chloro-4-pyridinyl)-N-cyclohexyl-6-methyl- (CA INDEX NAME)

RN 811448-83-6 CAPLUS

2-Pyrimidinecarboxamide, N-(1R,2R,4S)-bicyclo[2.2.1]hept-2-yl-5-(4-CN chlorophenyl)-4-(3-chloro-4-pyridinyl)-6-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.

RN 811448-84-7 CAPLUS

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-(3-chloro-4-pyridinyl)-6methyl-N-(phenylmethyl)- (CA INDEX NAME)

811448-85-8 CAPLUS RN

CN 2-Pyrimidinecarboxamide, 5-(4-chlorophenyl)-4-methyl-N-(phenylmethyl)-6-(4pyridinyl) - (CA INDEX NAME)

IT 811446-97-6P, 5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)-2-

methoxymethyl-6-methylpyrimidine 811446-98-7P,

[5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)-6-methylpyrimidin-2-yl]methanol811447-00-4P, 5-(4-Chlorophenyl)-4-(2,4-dichlorophenyl)-6-

methylpyrimidine-2-carboxylic acid

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyrimidine derivs, as cannabinoid receptor ligands)

811446-97-6 CAPLUS RN

CN Pyrimidine, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-2-(methoxymethyl)-6methyl- (CA INDEX NAME)

RN 811446-98-7 CAPLUS

CN 2-Pyrimidinemethanol, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl-(CA INDEX NAME)

RN 811447-00-4 CAPLUS

CN 2-Pyrimidinecarboxylic acid, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-methyl- (CA INDEX NAME)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 8 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     2004:857576 CAPLUS
DN
     141:332211
TΙ
     Preparation of arylpyrimidines as agrochemical and industrial fungicides.
IN
     Tormo I Blasco, Jordi; Blettner, Carsten; Mueller, Bernd; Gewehr, Markus;
     Grammenos, Wassilios; Grote, Thomas; Gypser, Andreas; Rheinheimer,
     Joachim; Schaefer, Peter; Schieweck, Frank; Schwoegler, Anja; Wagner,
     Oliver; Scherer, Maria; Strathmann, Siegfried; Schoefl, Ulrich; Stierl,
     Reinhard
PΑ
     BASF Aktiengesellschaft, Germany
     PCT Int. Appl., 76 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     German
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
                         ____
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                                            -----
PΙ
     WO 2004087678
                                20041014
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                          A1
                                                                   20040330
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             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
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     EP 1613605
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                                20060111
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     BR 2004009159
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     CN 1768045
                          Α
                                20060503
                                            CN 2004-80009216
                                                                   20040330
     JP 2006522045
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                                20060928
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                                            US 2005-549936
                          Α1
                                20061012
                                                                   20050920
PRAI DE 2003-10315735
                          A
                                20030404
     WO 2004-EP3335
                          W
                                20040330
OS
     MARPAT 141:332211
AB
     Title compds. [I; n = 1-5; R1 = alkyl, alkenyl, alkynyl, cycloalkyl,
     cycloalkenyl, 5-10 membered, saturated, partially unsatd. or aromatic
heterocycle
     containing 1-4 O, N, S; R2 = halo, cyano, (substituted) alkyl, alkenyl,
     alkynyl, alkoxy, alkenyloxy, alkynyloxy; R3 = cyano, CO2Ra, CONRzRb,
     CONORD, CSNRaRb, C(:NORa) NRzRb, C(:NRa) NRzRb, CONRaNRzRb, C(:NNRzRc) NRaRb,
     CORa, etc.; Ra, Rb = H, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl;
     Rz = Ra, CORa; L = halo, cyano, NO2, cyanato, alkyl, alkenyl, alkynyl,
     alkoxy, alkenyloxy, alkynyloxy, cycloalkyl, etc.], were prepared Thus,
     1-methylthio-4,6-dichloro-5-(2,4,6-trifluorophenyl)pyrimidine was treated
     sequentially with MeMgBr/bisdiphenylphosphinoferrocenepalladium
     dichloride/THF, 2-methylbutylmagnesium bromide/bisdiphenylphosphinoferroce
     nepalladium dichloride/THF, 3-ClC6H4CO(OOH)/CH2Cl2, and KCN/MeCN to give
     2-cyano-4-methyl-5-(2,4,6-trifluorophenyl)-6-(2-methylbutyl)pyrimidine.
     The latter at 250 ppm completely prevented Botrytis cinerea infection of
     paprika leaves.
ΙT
     773117-74-1P 773117-76-3P 773117-78-5P
     773117-80-9P 773117-82-1P 773117-84-3P
     RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU
     (Biological use, unclassified); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
```

(preparation of arylpyrimidines as agrochem. and industrial fungicides) RN 773117-74-1 CAPLUS

CN 2-Pyrimidinecarbonitrile, 4-chloro-6-(2-methylbutyl)-5-(2,4,6-trifluorophenyl)- (CA INDEX NAME)

RN 773117-76-3 CAPLUS

CN 2,4-Pyrimidinedicarbonitrile, 6-(2-methylbutyl)-5-(2,4,6-trifluorophenyl)-(CA INDEX NAME)

RN 773117-78-5 CAPLUS

CN 2,4-Pyrimidinedicarbonitrile, 6-cyclohexyl-5-(2,4,6-trifluorophenyl)- (CA INDEX NAME)

RN 773117-80-9 CAPLUS

CN 2-Pyrimidinecarbonitrile, 4-methyl-6-(2-methylbutyl)-5-(2,4,6-trifluorophenyl)- (CA INDEX NAME)

RN 773117-82-1 CAPLUS

CN 2-Pyrimidinecarbonitrile, 4-(3-butenyl)-6-methyl-5-(2,4,6-trifluorophenyl)-(9CI) (CA INDEX NAME)

NC N
$$CH_2-CH_2-CH=CH_2$$

N Me F

RN 773117-84-3 CAPLUS

CN 2-Pyrimidinecarbothioamide, 4-methyl-6-(2-methylbutyl)-5-(2,4,6-trifluorophenyl)- (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 9 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     2004:292069 CAPLUS
DN
     140:303694
TI
     Preparation of substituted pyrimidines for treating disorders mediated by
     the Cannabinoid-1 receptor
ΙN
     Kopka, Ihor E.; Li, Bing; Hagmann, William K.
PΑ
     Merck & Co., Inc., USA
SO
     PCT Int. Appl., 181 pp.
     CODEN: PIXXD2
DΤ
     Patent
LΑ
     English
FAN.CNT 1
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                                              WO 2003-US30161
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     WO 2004029204
                           А3
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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     CA 2499497
                           Α1
                                  20040408
                                            CA 2003-2499497
                                                                       20030923
     AU 2003275242
                           A1
                                  20040419
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     EP 1546115
                           A2
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     JP 2006510597
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                                  20060330
                                              JP 2004-539876
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     US 2005245554
                           Α1
                                  20051103
                                              US 2005-527561
                                                                       20050311
PRAI US 2002-414144P
                           P
                                  20020927
     WO 2003-US30161
                           W
                                  20030923
OS
     MARPAT 140:303694
AΒ
     Novel pyrimidines (shown as I; variables defined below; e.g. II) are
     antagonists and/or inverse agonists of the Cannabinoid-1 (CB1) receptor
     (no data) and are useful in the treatment, prevention and suppression of
     diseases mediated by the CB1 receptor (no data). The compds. of the
     present invention are useful as centrally acting drugs in the treatment of
     psychosis, memory deficits, cognitive disorders, migraine, neuropathy,
     neuro-inflammatory disorders including multiple sclerosis and
     Guillain-Barre syndrome and the inflammatory sequelae of viral
     encephalitis, cerebral vascular accidents, and head trauma, anxiety
     disorders, stress, epilepsy, Parkinson's disease, movement disorders, and
     schizophrenia. The compds. are also useful for the treatment of substance
     abuse disorders, the treatment of obesity or eating disorders, as well as
     the treatment of asthma, constipation, chronic intestinal
     pseudo-obstruction, and cirrhosis of the liver. Although the methods of
     preparation are not claimed, .apprx.130 example prepns. of I and 17 example
     prepns. of intermediates are included. For example, 2-(4-fluorobenzyloxy)-
     4-(4-chlorophenyl)-5-(2,4-dichlorophenyl)pyrimidine was prepared from
     2-methylthio-5-(2,4-dichlorophenyl)-4-(4-chlorophenyl)pyrimidine by
     displacement with 4-fluorobenzyl alc. in the presence of NaH in DMF; the
     pyrimidine reactant was prepared by cyclization of pseudothiourea sulfate
     with 3-dimethylamino-1-(4-chlorophenyl)-2-(2,4-dichlorophenyl)prop-2-ene,
     which was prepared by condensation of DMF dimethylacetal with 4-chlorobenzyl
     2,4-dichlorophenyl ketone, which was prepared from 2,4-dichlorobenzonitrile
     and a Grignard solution derived from 4-chlorobenzyl bromide. For I: R1 = H,
```

C1-10alkyl, -ORa, -NRaRb, -NRbC(O)Ra, -CO2Ra, -C(O)NRaRb, cyano, -SRb, and -SO2Rb; R2 = H, C1-10alkyl, -ORa, -NRaRb, -NRaC(O)Rb, -CO2Ra, -C(O)NRaRb, cyano, -SRa, and -SO2Ra; R3 = aryl, and heteroaryl, wherein each is (un) substituted with 1-4 Rg; R4 = aryl, and heteroaryl, wherein each is (un) substituted with 1-4 Rg; each Ra = H, C1-10alkyl, C2-10 alkenyl, etc.; each Rb = H, C1-10alkyl, C2-10 alkenyl, cycloalkyl, etc. or Ra and Rbtogether with the N atom to which they are attached form a bridged or unbridged heterocyclic ring = 4-7 members containing 0-2 addnl. O, S and NRd; each Rg = halogen, C1-10alkyl, -0-C1-4alkyl, -S-C1-4-alkyl, -CN, -CF3, and -OCF3; and m = 1 or 2; addnl. details are given in the claims. 676563-74-9P, 2-Cyano-4-(3,4-difluorobenzyloxy)-5-(4-chlorophenyl)-6-(2,4-dichlorophenyl)pyrimidine 676563-76-1P, 2,4-Bis(cyano)-5-(4-chlorophenyl)-6-(2,4-dichlorophenyl)pyrimidine 676563-93-2P, 2-(Diethylamino)-4-(3,4-difluorobenzyloxy)-5-(4chlorophenyl)-6-(2,4-dichlorophenyl)pyrimidine 676563-94-3P, 2-(N, N-Diisopropylamino)-4-(3, 4-difluorobenzyloxy)-5-(4-chlorophenyl)-6-(2,4-dichlorophenyl)pyrimidine RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)
(drug candidate; preparation of substituted pyrimidines for treating disorders mediated by the cannabinoid-1 receptor)

RN 676563-74-9 CAPLUS

IT

CN

2-Pyrimidinecarbonitrile, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-[(3,4-difluorophenyl)methoxy]- (9CI) (CA INDEX NAME)

$$C1$$
 $C1$
 N
 N
 $O-CH_2$
 F
 F
 $C1$

RN 676563-76-1 CAPLUS

CN 2,4-Pyrimidinedicarbonitrile, 5-(4-chlorophenyl)-6-(2,4-dichlorophenyl)-(9CI) (CA INDEX NAME)

I south para to take to

RN 676563-93-2 CAPLUS

CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-[(3,4-difluorophenyl)methoxy]-N,N-diethyl- (9CI) (CA INDEX NAME)

RN 676563-94-3 CAPLUS

CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-(2,4-dichlorophenyl)-6-[(3,4-difluorophenyl)methoxy]-N,N-bis(1-methylethyl)- (9CI) (CA INDEX NAME)

L12 ANSWER 10 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2004:205964 CAPLUS

DN 142:74474

TI Product class 12: pyrim/dines

AU von Angerer, S.

CS Germany

SO Science of Synthesis (2004), 16, 379-572 CODEN: SSCYJ9

PB Georg Thieme Verlag

DT Journal; General Review

LA English

AB A review. Methods for preparing pyrimidines are reviewed including cyclization, ring transformation, aromatization and substituent modification.

IT 57832-23-2P 57832-25-4P 57832-26-5P

124293-18-1P 282543-41-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of pyrimidines via cyclization, ring transformation, aromatization and substituent modification)

RN 57832-23-2 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-4-chloro- (9CI) (CA INDEX NAME)

RN 57832-25-4 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-4-bromo- (9CI) (CA INDEX NAME)

RN 57832-26-5 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-phenyl-5-pyrimidinyl)-4-bromo- (9CI) (CA INDEX NAME)

RN 124293-18-1 CAPLUS

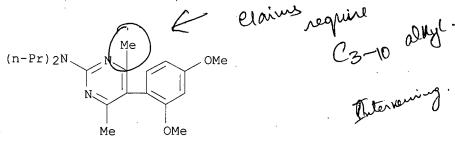
CN 2-Pyrimidinamine, 4-chloro-N, N-dimethyl-5, 6-diphenyl- (9CI) (CA INDEX NAME)

RN 282543-41-3 CAPLUS

CN 2-Pyrimidinamine, 4-methoxy-5,6-diphenyl- (9CI) (CA INDEX NAME)

RE.CNT 856 THERE ARE 856 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2003:521326 CAPLUS
- DN 139:239663
- TI 2-Aryl-3,6-dialkyl-5-dialkylaminopyrimidin-4-ones as novel CRF-1 receptor antagonists
- AU Hodgetts, Kevin J.; Yoon, Taeyoung; Huang, Jianhua; Gulianello, Michael; Kieltyka, Andrzej; Primus, Renee; Brodbeck, Robbin; De Lombaert, Stephane; Doller, Dario
- CS Neurogen Corporation, Branford, CT, 06405, USA
- SO Bioorganic & Medicinal Chemistry Letters (2003), 13(15), 2497-2500 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier Science B.V.
- DT Journal
- LA English
- OS CASREACT 139:239663
- AB The discovery, synthesis and structure-activity studies of a novel series of 2-arylpyrimidin-4-ones as CRF-1 receptor antagonists is described. These compds. are structurally simple and display appropriate phys. properties for CNS agents.
- IT 600178-79-8P
 - RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 - (probe compound; preparation, phys. properties, and biol. activity of 2-aryl-3,6-dialkyl-5-dialkylaminopyrimidin-4-ones as novel CRF-1 receptor antagonists)
- RN 600178-79-8 CAPLUS
- CN 2-Pyrimidinamine, 5-(2,4-dimethoxyphenyl)-4,6-dimethyl-N,N-dipropyl- (9CI) (CA INDEX NAME)



RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

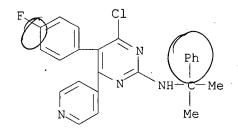
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ANSWER 12 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
L12
     2003:417751 CAPLUS
ΑN
DN
     139:6885
ΤI
     Preparation of substituted indolizine-like compounds to inhibit
     TNF-\alpha production
ΙN
     Cai, Guolin; Chau, Jennifer N.; Dominguez, Celia; Rishton, Gilbert M.; Lu,
     Yuelie
PΑ
     Amgen Inc., USA
SO
     PCT Int. Appl., 202 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                          KIND
                                 DATE
                                             APPLICATION NO.
                                                                      DATE
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                          ____
                                 _____
                                             -----
PΙ
     WO 2003044021
                           Α2
                                             WO 2002-US36699
                                 20030530
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     WO 2003044021
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             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK; TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003195221
                          A1
                                 20031016
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     US 6921762
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                                 20050726
     CA 2466072
                           Α1
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                                                                      20021116
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     EP 1448564
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     JP 2005518358
                           Т
                                 20050623
                                              JP 2003-545658
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     AT 323705
                           Τ
                                 20060515
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     PT 1448564
                           T
                                 20060630
                                              PT 2002-789671
                                                                      20021116
                           Т3
     ES 2262879
                                 20061201
                                              ES 2002-2789671
                                                                      20021116
                                              MX 2004-PA4552
     MX 2004PA04552
                           Α
                                 20040813
                                                                      20040513
                           Ρ
PRAI US 2001-332447P
                                 20011116
     US 2002-298205
                           Α1
                                 20021115
     WO 2002-US36699
                           W
                                 20021116
     MARPAT 139:6885
OS
AΒ
     Title compds. I [X = CR2, N; R1-2 = ZY, Y provided that the total number of
     (hetero)aryl, cycloalkyl and heterocyclyl radicals in R1-2 = 0-3; U, V, W
     = CR6, N provided when U = N, V = CR6; R6 = H, halo, alkyl, alkoxy, etc.;
     Z = alk(en/yn)yl, heterocyclyl, etc.; Y = H, halo, NO2, etc.; R11 =
     (hetero)aryl; R12 = N-heteroaryl] are prepared For instance, Et
     [4-fluorophenyl]acetate is reacted with 4-cyanopyridine, MeNCS and MeI
     (DMF, KOBu-t/HOBu-t) to give 5-(4-fluorophenyl)-3-methyl-2-(methylthio)-6-
     (pyridin-4-yl)-3H-pyrimidin-4-one. This intermediate is treated with
     POC13 (120°, 16 h) and the product treated with hydrazine (EtOH,
     70^{\circ}) followed by (S)-3-phenylpropane-1,2-diamine (preparation given) to
     give II. Selected example compds. exhibit activities in the THP1 cell
     assay (LPS induced TNF release) with IC50 \leq 20 \mu M. \; I are
     effective for treatment of TNF-\alpha, IL-1\beta, IL-6 and/or IL-8
     mediated diseases and other maladies, such as cancer, pain and diabetes.
IΤ
     534601-68-8P, 2-[(1-Methyl-1-phenylethyl)amino]-4-chloro-5-(4-
     fluorophenyl)-6-(4-pyridyl)pyrimidine
```

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of substituted indolizine-like compds. to inhibit $TNF-\alpha$ production)

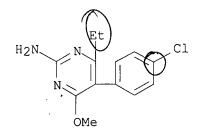
RN 534601-68-8 CAPLUS

CN 2-Pyrimidinamine, 4-chloro-5-(4-fluorophenyl)-N-(1-methyl-1-phenylethyl)-6-(4-pyridinyl)- (9CI) (CA INDEX NAME)





- L12 ANSWER 13 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2002:945595 CAPLUS
- DN 138:321228
- TI Structural studies on bioactive compounds. Part 37. Suzuki coupling of diaminopyrimidines: a new synthesis of the antimalarial drug pyrimethamine
- AU Richardson, Marianne L.; Stevens, Malcolm F. G.
- CS Cancer Research Laboratories, School of Pharmaceutical Sciences, University of Nottingham, Nottingham, NG7 2RD, UK
- SO Journal of Chemical Research, Synopses (2002), (10), 482-484 CODEN: JRPSDC; ISSN: 0308-2342
- PB Science Reviews
- DT Journal
- LA English
- OS CASREACT 138:321228
- AB Suzuki reactions have been used 'successfully to effect cross-coupling of 5-halopyrimidines with 4-chlorobenzeneboronic acid and 2,4-diamino-5-(4-chloro-3-halo)-6-ethylpyrimidines with 4-methoxybenzeneboronic acid. The antimalarial drug pyrimethamine has been prepared by coupling 2,4-diamino-6-ethyl-5-iodopyrimidine with 4-chlorobenzeneboronic acid.
- IT 514854-17-2P
 - RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of (chlorophenyl)aminopyrimidine via iodination of aminopyrimidine and subsequent Suzuki coupling of bromoaminopyrimidine with chlorobenzeneboronic acid)
- RN 514854-17-2 CAPLUS
- CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-ethyl-6-methoxy- (9CI) (CA INDEX NAME)



RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 14 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
     2001:923775 CAPLUS
AN
     136:53756
DN
ΤI
     Preparation of fungicidal 5-phenyl-2-(cyanoamino)pyrimidines
IN
     Pees, Klaus-Juergen; Pfrengle, Waldemar; Heffernan, Gavin
PΑ
     Basf Aktiengesellschaft, Germany
SO
     PCT Int. Appl., 46 pp.
     CODEN: PIXXD2
DT
     Patent
     English ·
LA
FAN.CNT 1
     PATENT NO.
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                                 DATE
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                                                                     DATE
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PΙ
     WO 2001096314
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
             VN, YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2412010
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                                 20011220
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     EP 1289963
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                                 20030312
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     AT 303367
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             IE, FI, CY,
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     US 2003088096
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     US 6632821
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                                             MX 2002-PA12073
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     IN 2002CN02029
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     US 6943252
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     US 2005282828
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     US 2005282847
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     US 7230104
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     US 2007208037
                           A1
                                 20070906
                                             US 2007-745329
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PRAI US 2000-211262P
                           Ρ
                                 20000613
     US 2000-231632P
                           Ρ
                                 20000911
     EP 2001-949398
                           A3
                                 20010611
     WO 2001-EP6565
                           W
                                 20010611
     US 2001-879283
                           A3
                                 20010612
     US 2003-615352
                           А3
                                 20030709
     US 2005-186087
                           Α3
                                 20050722
OS
     MARPAT 136:53756
AB
     The title compds. [I; R1 = H, alkyl, haloalkyl, etc.; R2 = (un)substituted
     represents Ph, cycloalkyl, 5-6 membered heteroaryl, containing 1-4 N atoms or
     1-3 N atoms and one S or O atom; R3 = H, halo, alkyl, etc.; R4 = H, alkyl,
     alkenyl, alkynyl; X = O, S, NR5, a single bond; R5 = H, alkyl; or R1 and
```

R5 together with the interjacent N atom form a heterocyclic ring], useful for controlling harmful fungi, were prepared Thus, treating 5-chloro-6-(2,4,6-trifluorophenyl)-7-(1,1,1-trifluoroprop-2-ylamino)-triazolo[1,5-a]pyrimidine with NaH and MeI in DMF afforded I [X = NH; R1 = 1,1,1-trifluoroprop-2-yl; R2 = 2,4,6-F3C6H2; R3 = Cl; R4 = Me] which showed severe inhibition of rice sheath blight growth in vitro. 381214-92-2P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of fungicidal 5-phenyl-2-(cyanoamino)pyrimidines) 381214-92-2 CAPLUS

Cyanamide, [4-chloro-6-cyclohexyl-5-(2,4,6-trifluorophenyl)-2-pyrimidinyl]methyl- (9CI) (CA INDEX NAME)

ΙT

RN

CN

RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 15 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
     2001:78356
ΑN
                 CAPLUS
DN
     134:131548
ΤI
     Preparation of tricyclic compounds as allergy inhibitors,
     immunosuppressants, and IgE production inhibitors
ΙN
     Tanimoto, Norihiko; Inagaki, Masanao
PA
     Shionogi & Co., Ltd., Japan
SO
     PCT Int. Appl., 363 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     Japanese
FAN.CNT 3
     PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                                                                       DATE
PΙ
     WO 2001007401
                                  20010201
                                              WO 2000-JP4726
                           Α1
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             HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
              SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
              ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
              CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 200060160
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                                  20010213
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PRAI JP 1999-209298
                           Α
                                  19990723
     JP 1999-211702
                           Α
                                 19990727
     WO 2000-JP4726
                           W
                                  20000714
OS
     MARPAT 134:131548
AΒ
     The title compds. I [A, B and C are each an aromatic carbo- or hetero-cycle
     or the like, with the proviso that when A is an optionally substituted
     five-membered heterocycle, W1 is a bond, the same applying in the case of
     B and W2 and that of C and W3; X and X' are each O, NH, or the like; Y is
     lower alkyl, lower alkenyl, or the like; V1 and V2 are each a single bond
     or the like; Ra and Rb are each hydrogen, lower alkyl, lower alkenyl, or
     the like; further details on Ra and Rb are given ; n is 0 to 2] are prepared
     Several compds. of this invention at 40 mg/kg/day orally for 10 days
     suppressed the production of IgE in a mouse model. Formulations are given.
ΙT
     321982-03-0P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of tricyclic compds. as allergy inhibitors, immunosuppressants,
        and IgE production inhibitors)
     321982-03-0 CAPLUS
RN
CN
     2-Propanone, O-[5-[2'-fluoro-2,5-dimethyl-4'-[(3-methyl-2-installing)]]
     butenyl)amino][1,1'-biphenyl]-4-yl]-4,6-dimethyl-2-pyrimidinyl]oxime (9CI)
        (CA INDEX NAME)
                                           E Co North
                             Me
                                Ме
```

Me

CH-CH2-NH

L12 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:458340 CAPLUS

DN 133:237945

TI Synthesis and bioactivities of novel piperidylpyrimidine derivatives: inhibitors of tumor necrosis factor-alpha production

AU Fujiwara, Norio; Fujita, Hitoshi; Iwai, Kiyotaka; Kurimoto, Ayumu; Murata, Shinobu; Kawakami, Hajime

CS Research Center, Sumitomo Pharmaceuticals Co., Ltd., Osaka, 554-0022, Japan

SO Bioorganic & Medicinal Chemistry Letters (2000), 10(12), 1317-1320 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 133:237945

AB New piperidylpyrimidines, including quinazolines, were prepared, and their abilities to inhibit TNF- α production were evaluated. Some compds. showed potent inhibitory activity in mouse macrophages stimulated with LPS. The synthesis and structure-activity relationships of these compds. are described.

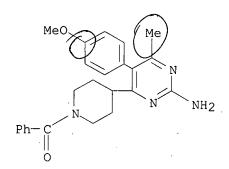
IT 198551-05-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of piperidylpyrimidines as inhibitors of tumor necrosis factor-alpha production)

RN 198551-05-2 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-benzoyl- (9CI) (CA INDEX NAME)



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2000:220886 CAPLUS

DN 133:105004

TI Structural studies on bioactive compounds. Part 29. Palladium catalyzed arylations and alkynylations of sterically hindered immunomodulatory 2-amino-5-halo-4,6-(disubstituted)pyrimidines

AU Hannah, D. R.; Sherer, E. C.; Davies, R. V.; Titman, R. B.; Laughton, C. A.; Stevens, M. F. G.

CS School of Pharmaceutical Sciences, Cancer Research Laboratories, University of Nottingham, Nottingham, UK

SO Bioorganic & Medicinal Chemistry (2000), 8(4), 739-750 CODEN: BMECEP; ISSN: 0968-0896

PB Elsevier Science Ltd.

DT Journal

LA English

OS CASREACT 133:105004

Immunol. agent bropirimine is a tetra-substituted pyrimidine with AB anticancer and interferon-inducing properties. Synthetic routes to novel 5-aryl analogs of bropirimine have been developed and their potential mol. recognition properties analyzed by mol. modeling methods. Sterically challenged 2-amino-5-halo-6-phenylpyrimidin-4-ones (halo = Br or I) are poor substrates for palladium catalyzed Suzuki cross-coupling reactions with benzeneboronic acid because the basic conditions of the reaction converts the amphoteric pyrimidinones to their unreactive enolic forms. Palladium-mediated reductive dehalogenation of the pyrimidinone substrates effectively competes with cross-coupling. 2-Amino-5-halo-4-methoxy-6phenylpyrimidines can be converted to a range of 5-aryl derivs. with the 5-iodopyrimidines being the most efficient substrates. Hydrolysis of the 2-amino-5-aryl-4-methoxy-6-phenylpyrimidines affords the required pyrimidin-4-ones in high yields. Semiempirical quantum mech. calcns. show how the nature of the 5-substituent influences the equilibrium between the 1Hand 3H-tautomeric forms, and the rotational freedom about the bond connecting the 6-Ph group and the pyrimidine ring. Both of these factors may influence the biol. properties of these compds.

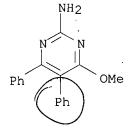
IT 282543-41-3P 282543-44-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(palladium catalyzed arylations and alkynylations of sterically hindered immunomodulatory aminohalopyrimidines)

RN 282543-41-3 CAPLUS

CN 2-Pyrimidinamine, 4-methoxy-5,6-diphenyl- (9CI) (CA INDEX NAME)



RN 282543-44-6 CAPLUS

CN 2-Pyrimidinamine, 4-methoxy-5-(4-methoxyphenyl)-6-phenyl- (9CI) (CA INDEX NAME)

IT 282543-42-4P 282543-45-7P 282543-46-8P

RL: SPN (Synthetic preparation); PREP (Preparation)
(palladium catalyzed arylations and alkynylations of sterically hindered immunomodulatory aminohalopyrimidines)

RN 282543-42-4 CAPLUS

CN 2-Pyrimidinamine, 5-(2,4-dichlorophenyl)-4-methoxy-6-phenyl- (9CI) (CA INDEX NAME)

RN 282543-45-7 CAPLUS

CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-methoxy-6-phenyl- (9CI) (CA INDEX NAME)

RN 282543-46-8 CAPLUS

CN 2-Pyrimidinamine, 4-methoxy-5-(3-nitrophenyl)-6-phenyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Ph} & \\ \text{NO}_2 & \\ \text{OMe} & \\ \end{array}$$

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN.

AN 1999:571813 CAPLUS

DN 131:184965

TI Preparation of piperidinylpyrimidines tumor necrosis factor $\boldsymbol{\alpha}$ inhibitors.

IN Fujiwara, Norio; Ueda, Yutaka; Murata, Shinobu; Hirota, Fumiyo; Kawakami, Hajime; Fujita, Hitoshi

PA Sumitomo Pharmaceuticals Company, Limited, Japan

SO U.S., 48 pp., Cont.-in-part of U.S. Ser. No. 911,001. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICÁTION NO.	DATE
ΡI	US 5948786	A	19990907	US 1998-69085	19980429
PRAI	JP 1996-115556	Α	19960412		
	US 1996-722548	B2	19960927		
	US 1997-837453	B2	19970418		
	US 1997-911001	A2	19970814		
OS	MARPAT 131:184965	•			

Title compds. [I; X1 = NH2 or OH; X2 = CO, COO, CONH, SO2; R1 = alkyl, cycloalkyl, (un)substituted aryl; R2 = H, alkyl, aryl; R3 = alkyl, (un)substituted aryl, heteroaryl; R2R3 = atoms to form a quinazoline or pyridopyrimidine system] were prepared for inhibiting the production and/or secretion of tumor necrosis factor α . Uses include in particular the inhibition of HIV-1 long terminal repeat transcriptional activation, which is claimed for a subset of I (X2R1 = 3,4-methylenedioxybenzoyl). Thus, condensation of PhCOMe with Et 1-benzoylisonipecotate gave the corresponding β -diketone, which underwent cyclocondensation with guanidine to give title compound II. Data for biol. activity of I were given.

IT 198554-74-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of piperidinylpyrimidine derivs. as TNF inhibitors)

RN 198554-74-4 CAPLUS

CN 2-Pyrimidinamine, 5-(4-methoxyphenyl)-4-methyl-6-(4-piperidinyl)- (9CI) (CA INDEX NAME)

IT 198551-05-2P

RN

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of piperidinylpyrimidine derivs. as TNF inhibitors) 198551-05-2 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-benzoyl- (9CI) (CA INDEX NAME)

IT 198554-43-7P 240496-89-3P 240496-91-7P

240496-93-9P 240496-94-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperidinylpyrimidine derivs. as TNF inhibitors)

RN 198554-43-7 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-benzoyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 240496-89-3 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-(cyclohexylcarbonyl)- (9CI) (CA INDEX NAME)

RN 240496-91-7 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-(2-furanylcarbonyl)- (9CI) (CA INDEX NAME)

RN 240496-93-9 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-(1,3-benzodioxol-5-ylcarbonyl)- (9CI) (CA INDEX NAME)

RN .240496-94-0 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-(phenylacetyl)- (9CI) (CA INDEX NAME)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 19 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
     1999:495258 CAPLUS
ΑN
DN
     131:129907
ΤI
     Preparation and formulation of tricyclic compounds as immunosuppressants
     and allergy inhibitors
IN
     Tanimoto, Norihiko; Hasegawa, Yasushi; Haga, Nobuhiro
PΑ
     Shionogi & Co., Ltd., Japan
     PCT Int. Appl., 298 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA ·
     Japanese
FAN.CNT 1
                                  DATE
     PATENT NO.
                          KIND
                                               APPLICATION NO.
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                                  ----- .
                                               _____
                                            WO 1999-JP297
                                 19990805
PΙ
     WO 9938829
                           A1
                                                                       19990126
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
         TT, UA, UG, US, UZ, VN, YU, ZW
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
              FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
              CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2318368
                           A1
                                  19990805
                                               CA 1999-2318368
                                                                        19990126
     CA 2318368
                           С
                                  20070911
     AU 9919837
                           Α
                                  19990816
                                               AU 1999-19837
                                                                        19990126
     AU 742641
                           В2
                                  20020110
     EP 1052238
                           A1
                                  20001115
                                               EP 1999-900676
                                                                        19990126
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO
     BR 9908539
                                               BR 1999-8539
                        . A
                                  20001205
                                                                        19990126
     TR 200002225
                           Т2
                                               TR 2000-200002225
                                  20001221
                          A2
     HU 200103304
                                  20020228
                                               HU 2001-3304
                                                                        19990126
     NZ 506101
                          Α
                                  20030630
                                               NZ 1999-506101
                          C2
     RU 2216533
                                  20031120
                                               RU 2000-121556
                                                                        19990126
                       B2
A
A
     JP 3929700
                                  20070613
                                               JP 2000-530068
                                                                      20000626
     IN 2000CN00148
                                  20050304
                                               IN 2000-CN148
     MX 2000PA07024
                                  20010219
                                               MX 2000-PA7024
                                                                       20000718
     NO 2000003706
                          Α
                                  20000914
                                               NO 2000-3706
                                                                       20000719
     US 6562817
                          B1
                                  20030513
                                               US 2000-600790
                                                                       20000721
PRAI JP 1998-15554
                          Α
                                  19980128
     WO 1999-JP297
                                  19990126
     MARPAT 131:129907
OS
AΒ
     The title compds. I [each of ring A, ring B and ring C is independently a
     substituted or unsubstituted aromatic ring or a substituted or unsubstituted
     five or six-membered heterocycle which may be condensed with a benzene
     ring; when ring A, ring B and/or ring C is a substituted or unsubstituted
     five-membered heterocycle, W1, W2 and/or W3 represents a bond; X is O or
     NR1 (where R1 is hydrogen, a lower alkyl or the like); Y is hydrogen, a
     lower alkyl, a lower alkenyl or the like; one of V1 and V2 is a single
     bond and the other is a single bond, O, etc.] are prepared The title compound
     II in vitro showed IC50 of 400 ng/mL against the growth of mouse EL4
     cells. The inhibiting activities of compds. of this invention against the
     production of IgE were also demonstrated.
     234428-97-8P 234428-98-9P 234428-99-0P
ΙT
     234429-00-6P 234429-01-7P 234429-02-8P
     234429-03-9P 234429-04-0P 234429-05-1P
     234429-06-2P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
```

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of tricyclic compds. as immunosuppressants and allergy inhibitors)

RN 234428-97-8 CAPLUS

CN Phenol, 5-[4-methoxy-6-methyl-2-(phenylamino)-5-pyrimidinyl]-2-(phenylmethoxy)-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

RN 234428-98-9 CAPLUS

CN Phenol, 5-[4-methoxy-6-methyl-2-(phenylamino)-5-pyrimidinyl]-2-[(4-methylphenyl)methoxy]- (9CI) (CA INDEX NAME)

RN 234428-99-0 CAPLUS

CN Phenol, 5-[4-methoxy-6-methyl-2-(phenylamino)-5-pyrimidinyl]-2-[(4-methylphenyl)methoxy]-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & MeO & N & NHPh \\ Me & S - O & MeO & N & NHPh \\ \hline O & CH_2 - O & Me & Me \\ \end{array}$$

RN 234429-00-6 CAPLUS

CN Phenol, 5-[4-methoxy-2-[(4-methoxyphenyl)amino]-6-methyl-5-pyrimidinyl]-2-(phenylmethoxy)-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O \\ Me - S - O \\ \hline \\ O \\ \hline \\ O \\ \hline \\ O \\ \hline \\ Me \\ \hline \\ O \\ \hline \\ N \\ \hline \\ NH \\ \hline \\ O \\ O \\ O \\ O \\ Me \\ \\ O \\$$

RN 234429-01-7 CAPLUS

CN Phenol, 5-[4-methoxy-2-[(4-methoxyphenyl)amino]-6-methyl-5-pyrimidinyl]-2-[(4-methylphenyl)methoxy]- (9CI) (CA INDEX NAME)

RN 234429-02-8 CAPLUS

CN Phenol, 5-[4-methoxy-2-[(4-methoxyphenyl)amino]-6-methyl-5-pyrimidinyl]-2[(4-methylphenyl)methoxy]-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

RN 234429-03-9 CAPLUS

CN Phenol, 5-[2-[(4-fluorophenyl)amino]-4-methoxy-6-methyl-5-pyrimidinyl]-2[(4-methylphenyl)methoxy]- (9CI) (CA INDEX NAME)

RN 234429-04-0 CAPLUS

CN Phenol, 5-[2-[(4-fluorophenyl)amino]-4-methoxy-6-methyl-5-pyrimidinyl]-2[(4-methylphenyl)methoxy]-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

RN 234429-05-1 CAPLUS

CN Phenol, 5-[2-[(4-fluorophenyl)amino]-4-methoxy-6-methyl-5-pyrimidinyl]-2-[(3-methyl-2-butenyl)oxy]- (9CI) (CA INDEX NAME)

$$Me_2C = CH - CH_2 - O$$
 Me
 N
 N
 NH
 NH

RN 234429-06-2 CAPLUS

CN Phenol, 5-[2-[(4-fluorophenyl)amino]-4-methoxy-6-methyl-5-pyrimidinyl]-2[(3-methyl-2-butenyl)oxy]-, methanesulfonate (ester) (9CI) (CA INDEX NAME)

$$Me - S - O$$

$$Me - O$$

$$M$$

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L12
     ANSWER 20 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1997:696753 CAPLUS
DN
     128:3696
TI
     Piperidinylpyrimidine derivatives useful as inhibitors of tumor necrosis
IN
     Fujiwara, Norio; Ueda, Yutaka; Murata, Shinobu; Hirota, Fumiyo; Kawakami,
     Hajime; Fujita, Hitoshi
PA
     Sumitomo Pharmaceuticals Company, Limited, Japan
SO
     PCT Int. Appl., 150 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 2
     PATENT NO.
                          KIND
                                 DATE
                                             APPLICATION NO.
                          A1
ΡI
     WO 9738992
                                 19971023
                                              WO 1997-JP1240
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
     CA 2250943
                          A1
                                 19971023
                                              CA 1997-2250943
                                                                      19970410
     AU 9725215
                           Α
                                 19971107
                                              AU 1997-25215
                                                                      19970410
     EP 892795
                           Α1
                                 19990127
                                              EP 1997-916641
                                                                      19970410
     EP 892795
                           В1
                                 20030108
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
         R:
     JP 2001511764
                           Τ
                                 20010814
                                              JP 1997-536938
                                                                      19970410
                           Τ
     AT 230740
                                 20030115
                                              AT 1997-916641
                                                                      19970410
PRAI JP 1996-115556
                          Α
                                 19960412
     US 1996-722548
                           Α
                                 19960927
     WO 1997-JP1240
                           W
                                 19970410
OS
     MARPAT 128:3696
AB
     Compds. of formula I [wherein X1 = NH2 or OH; X2 = CO, COO, CONH, SO2; R1
     = alkyl, cycloalkyl, (un) substituted aryl, various sidechains; R2 = H,
     alkyl, aryl; R3 = alkyl, (un)substituted aryl, heteroaryl, various
     sidechains; or R2 and R3 combine with the pyrimidine ring to form a
     quinazoline or pyridopyrimidine system] and their pharmaceutically
     acceptable salts are effective for inhibiting the production and/or secretion
     of tumor necrosis factor (TNF) (no data). Uses include in particular the
     inhibition of HIV-1 long terminal repeat transcriptional activation, which
     is claimed for a subset of I [with -X2R1 = 3,4-methylenedioxybenzoyl].
     Over 300 invention compds. are described. For instance, condensation of
     acetophenone with Et 1-benzoylisonipecotate using NaH in THF gave the
     corresponding \beta-diketone, which underwent cyclocondensation with
     guanidine (from HCl salt and K2CO3) in pyridine to give title compound II.
ΙT
     198554-74-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (intermediate; preparation of piperidinylpyrimidine derivs. as TNF
        inhibitors)
     198554-74-4 CAPLUS
RN
     2-Pyrimidinamine, 5-(4-methoxyphenyl)-4-methyl-6-(4-piperidinyl)- (9CI)
CN
     (CA INDEX NAME)
```

$$\stackrel{\text{MeO}}{\longrightarrow} \stackrel{\text{Me}}{\longrightarrow} \stackrel{\text{N}}{\longrightarrow} \stackrel{\text{NH}_2}{\longrightarrow}$$

IT 198551-05-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of piperidinylpyrimidine derivs. as TNF inhibitors)

RN 198551-05-2 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-benzoyl- (9CI) (CA INDEX NAME)

IT 198554-43-7P

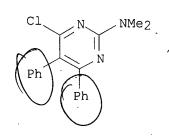
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of piperidinylpyrimidine derivs. as TNF inhibitors)

RN 198554-43-7 CAPLUS

CN Piperidine, 4-[2-amino-5-(4-methoxyphenyl)-6-methyl-4-pyrimidinyl]-1-benzoyl-, monohydrochloride (9CI) (CA INDEX NAME)

- L12 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1990:20957 CAPLUS
- DN 112:20957
- TI An expeditious synthesis of 2-dialkylamino-4-chloropyrimidines from silylated primary enamines and phosgeniminium salts
- AU Guillot, Nadine; Janousek, Zdenek; Viehe, Heinz G.
- CS Lab. Chim. Org., Univ. Louvain, Louvain-la-Neuve, B-1348, Belg.
- SO Heterocycles (1989), 28(2), 879-86 CODEN: HTCYAM; ISSN: 0385-5414
- DT Journal
- LA English
- OS CASREACT 112:20957
- AB Condensation of RCH:C(R1)NHSiMe3 [R = Me, Pr, (CH2)6Me; R1 = Ph, p-F3CC6H4, p-FC6H4, p-BrC6H4, p-anisyl, 2-thienyl] with R22N+:CCl2 Cl- [R2 = Me; R22 = (CH2)n, n = 4-6, (CH2)2O(CH2)2] gave [R22N+:C(Cl)C(R):C(R1)N:C(Cl)NR22]Cl-, which cyclized upon heating to give 18-95% 13 pyrimidines I via loss of the corresponding alkyl chloride (R2Cl). The reactions are regiospecific and represent a new entry to pyrimidine nuclei.
- IT 124293-18-1P
 - RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)
- RN 124293-18-1 CAPLUS
- CN 2-Pyrimidinamine, 4-chloro-N, N-dimethyl-5, 6-diphenyl- (9CI) (CA INDEX NAME)





- L12 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1986:608819 CAPLUS
- DN 105:208819
- TI Chemistry of isoflavone heteroanalogs. 10. Synthesis of pyrimidines by recyclization of isoflavones and their heteroanalogs
- AU Khilya, V. P.; Kornilov, M. Yu.; Gorbulenko, N. V.; Golubushina, G. M.; Kovtun, E. N.; Kolotusha, N. V.; Panasenko, G. V.
- CS Kiev. Gos. Univ., Kiev, 252017, USSR
- SO Khimiya Geterotsiklicheskikh Soedinenii (1985), (11), 1542-50 CODEN: KGSSAQ; ISSN: 0453-8234
- DT Journal
- LA Russian
- OS CASREACT 105:208819
- AB 4-(2-Hydroxyphenyl)pyrimidines I (R = H, Me, CF3, R1 = H, Et, Pr, hexyl, R2 = H, MeO, X = NH2, Me, H, Y = 4-thiazolyl, 2-methyl- or 2-phenyl-4-thiazolyl, Ph, substituted phenyl) were prepared in 28-86% yields by recyclization of the corresponding isoflavones II in the presence of XC(:NH)NH2.
- RN 105258-16-0 CAPLUS
- CN Phenol, 2-12-amino-5-(4-bromophenyl)-6-methyl-4-pyrimidinyl]-5-methoxy-4-propyl- (9CI) (CA INDEX NAME)

- RN 105258-17-1 CAPLUS
- CN Phenol, 2-[2-amino-5-phenyl-6-(trifluoromethyl)-4-pyrimidinyl]-5-methoxy-(9CI) (CA INDEX NAME)

- RN 105258-18-2 CAPLUS
- CN Phenol, 2-[2-amino-5-(4-bromophenyl)-6-(trifluoromethyl)-4-pyrimidinyl]-5-methoxy- (9CI) (CA INDEX NAME)

RN

105258-20-6 CAPLUS
Phenol, 2-[2-amino-5-phenyl-6-(trifluoromethyl)-4-pyrimidinyl]-4-ethyl-5-methoxy- (9CI) (CA INDEX NAME) CN

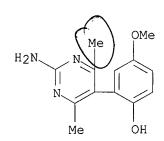
RN 105258-21-7 CAPLUS

CN Phenol, 2-[2-amino-5-(4-bromophenyl)-6-methyl-4-pyrimidinyl]-4-hexyl-5methoxy- (9CI) (CA INDEX NAME)

$$H_2N$$
 N
 $(CH_2)_5-Me$
 Br

- L12 ANSWER 23 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1984:591823 CAPLUS
- DN 101:191823
- TI Methods for obtaining bisaminopyrimidines bridged by a polymethylene chain
- AU Menichi, Gabriel; Hubert-Habart, Michel
- CS Sect. Phys. Chim., Inst. Curie, Paris, 75231, Fr.
- SO Journal of Heterocyclic Chemistry (1984), 21(1), 209-13 CODEN: JHTCAD; ISSN: 0022-152X
- DT Journal
- LA French
- OS CASREACT 101:191823
- AB N(2),N'(2')- $\alpha\omega$ -Alkandiylbis(2-aminopyrimidines) e.g. I (n = 3, 4, 6, 8) are the sole products obtained by condensation of several polymethylene bisguanidines on Et ethoxymethylenemalonate, 3-methylchromone, flavone, acetylacetone, acetylacetaldehyde dimethylacetal and 3-acetyl-2-ethylbenzofuran.
- IT 92736-30-6P
 - RL: SPN (Synthetic preparation); PREP (Preparation)
 - · (preparation of)
- RN 92736-30-6 CAPLUS
- CN Phenol, 2,2'-[1,4-butanediylbis[imino(4-ethyl-6-methyl-2,5-pyrimidinediyl)]]bis- (9CI) (CA INDEX NAME)

- L12 ANSWER 24 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 1984:530655 CAPLUS
- DN 101:130655
- TI Synthesis of heterocyclic derivatives of 1,4-benzoquinone
- AU Kolesnikov, V. T.; Slesarchuk, L. P.; Vid, L. V.; Kartoflitskaya, A. P.
- CS L'vov. Politekh. Inst., Lvov, USSR
- SO Deposited Doc. (1982), SPSTL 1237 Khp-D82, 8 pp. Avail.: SPSTL
- DT Report
- LA Russian
- AB Treating benzofurans I (R = H, Cl), prepared conventionally from p-benzoquinones, with guanidine sulfate gave II (R1 = Me, X = NH), which were treated with 48% HBr to give II (R1 = H, X = O), which were oxidized by K2Cr2O7 to give III. Analogously obtained were the 3.5-dimethylpyrazol-4-yl derivs.
- IT 91473-18-6P 91997-70-5P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (preparation and demethylation-oxidation of)
- RN 91473-18-6 CAPLUS
- CN Phenol, 2-(2-amino-4,6-dimethyl-5-pyrimidinyl)-4-methoxy- (9CI) (CA INDEX NAME)



no utility

RN 91997-70-5 CAPLUS

CN Phenol, 6-(2-amino-4,6-dimethyl-5-pyrimidinyl)-2,3-dichloro-4-methoxy-(9CI) (CA INDEX NAME)

SO Ger. Offen., 34 pp. CODEN: GWXXBX

DT Patent LA German

FAN.CNT 1

21277	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE .
PI	DE 2750288	A1	19790517	DE 1977-2750288	19771110
	EP 1981	· A1	19790530	EP 1978-101160	19781014
	EP 1981	B1	19810401		
	R: BE, CH, DE,	FR, GB	, LU, NL, SE	·	
	AT 7807731	A	19800815	AT 1978-7731	19781030
	AT 361623	В	19810325		
	ES 474693	A1	19790401	ES 1978-474693	19781031
	US 4256738 ·	A	19810317	US 1978-957451	19781103
	DK 7804997	A	19790511	DK 1978-4997	19781109
	FI 7803417	A	19790511	FI 1978-3417	19781109
	NO 7803767	A	19790511	NO 1978-3767	19781109
	AU 7841448	A	19790517	AU 1978-41448	19781109
	JP 54076588	A	19790619	JP 1978-138372	19781109
	ZA 7806313	A	19800730	ZA 1978-6313	19781109
	CA 11077:26	A1	19810825	CA 1978-316079	19781109
PRAI	DE 1977-2750288		19771110		•

AB The title compds. I (n = 3, R = optionally substituted or condensed 2- or 4-pyrimidinyl) (75 compds.) and I (n = 2, R = 4-dimethylamino-2-pyrimidinyl) were prepared Thus, I (R = H, n = 3) was treated with QCl to give 47% I (R = Q, n = 3).

IT 71417-63-5P

OS

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 71417-63-5 CAPLUS

MARPAT 91:175669

CN Erythromycin, 9-deoxo-9-[[3-[(4,6-dimethyl-5-phenyl-2-pyrimidinyl)amino]propyl]amino]-, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L12 ANSWER 26 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1977:29749 CAPLUS

DN 86:29749

TI Ketene-S,S-acetals. V. The reactions of α -keto- and α -cyanoketene-S,S-acetals with guanidine and thiourea: a new general synthesis of alkoxypyrimidines

AU Chauhan, S. M. S.; Junjappa, H.

CS Div. Med. Chem., Cent. Drug Res. Inst., Lucknow, India

SO Tetrahedron (1976), 32(14), 1779-87 CODEN: TETRAB; ISSN: 0040-4020

DT Journal

LA English

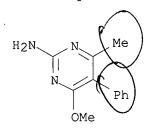
OS CASREACT 86:29749

AB Ketoketene-S,S-acetals with guanidine and thiourea in the presence of alc. sodium alkoxides gave 2-amino- and 2-mercapto-4-alkoxy-5-aryl-6-methylpyrimidines, resp. E.g., PhC(COMe):C(SMe)2 with guanidine and thiourea in the presence of EtONa gave 42% and 34% pyrimidines I (R = NH2, SH, R1 = OEt, R2 = Ph, R3 = Me, resp.). Similarly, α-cyanoketene-S,S-acetals gave 5-substituted 2,4-diamino-6-alkoxypyrimidines with guanidine. E.g., (NC)2C:C(SMe)2 gave 55% I (R = R1 = NH2, R2 = CN, R3 = OEt). Cyclic ketene-S,S-acetals gave 5,6-fused pyrimidines. E.g., 2-bis(methylthio)methylenecyclopentanone with guanidine and MeONa gave 56% TT

IT 61539-02-4P 61539-03-5P 61539-04-6P 61539-05-7P 61539-06-8P 61539-07-9P 61539-08-0P 61539-09-1P 61539-10-4P RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of) 61539-02-4 CAPLUS

CN 2-Pyrimidinamine, 4-methoxy-6-methyl-5-phenyl- (9CI) (CA INDEX NAME)



RN

RN 61539-03-5 CAPLUS

CN 2-Pyrimidinamine, 4-ethoxy-6-methyl-5-phenyl- (9CI) (CA INDEX NAME)

RN 61539-04-6 CAPLUS

CN 2-Pyrimidinamine, 4-methyl-5-phenyl-6-propoxy- (9CI) (CA INDEX NAME)

RN 61539-05-7 CAPLUS

CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-methoxy-6-methyl- (9CI) (CA INDEX NAME).

RN 61539-06-8 CAPLUS

CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-ethoxy-6-methyl- (9CI) (CA INDEX NAME)

RN 61539-07-9 CAPLUS

CN 2-Pyrimidinamine, 5-(4-chlorophenyl)-4-methyl-6-propoxy- (9CI) (CA INDEX NAME)

RN 61539-08-0 CAPLUS

CN 2-Pyrimidinamine, 4-methoxy-5-(4-methoxyphenyl)-6-methyl- (9CI) (CA INDEX NAME)

RN 6.1539-09-1 CAPLUS

CN 2-Pyrimidinamine, 4-ethoxy-5-(4-methoxyphenyl)-6-methyl- (9CI) (CA INDEX NAME)

RN 61539-10-4 CAPLUS

CN 2-Pyrimidinamine, 5-(4-methoxyphenyl)-4-methyl-6-propoxy- (9CI) (CA INDEX NAME)

L12 ANSWER 27 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1976:90109 CAPLUS

DN 84:90109

TI Antitumor agents. XII. Direct synthesis of 2-sulfanilamidopyrimidines by action of sulfaguanidine on various oxygen heterocycles

AU Pene, Cecile; Hubert-Habart, Michel; Royer, Rene

CS Fond. Curie, Inst. Radium, Paris, Fr.

SO European Journal of Medicinal Chemistry (1975), 10(4), 340-2 CODEN: EJMCA5; ISSN: 0223-5234

DT Journal

LA French

AB Pyrimidines I (R = H, R1 = Me, R2 = 2-HOC6H4; R = Ph, R1 = H, R2 = 2-HOC6H4; R = Et, Ph, NH2, R1 = 2-HOC6H4, R2 = Et; R = H, Me, NH2, R1 = 4,2-Cl(HO)C6H3, R = Et; R = CH2Ac, R1 = H, R2 = Me) were prepared by condensing 4-benzopyrones, 2-ethylbenzofurans, or 2,6-dimethyl-4-pyrone with sulfaguanidine in EtOH-NaOEt.

IT 58416-75-4P 58416-76-5P 58416-78-7P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 58416-75-4 CAPLUS

CN Benzenesulfonamide, 4-amino-N-[4,6-diethyl-5-(2-hydroxyphenyl)-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

RN 58416-76-5 CAPLUS

CN Benzenesulfonamide, 4-amino-N-[4-ethyl-5-(2-hydroxyphenyl)-6-phenyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

RN 58416-78-7 CAPLUS

CN Benzenesulfonamide, 4-amino-N-[5-(5-chloro-2-hydroxyphenyl)-4-ethyl-6-methyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 28 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1976:30999 CAPLUS

DN 84:30999

TI Synthesis of pyrimidines and pyrazoles from 3-acyl-5-halobenzofurans

AU Takagi, Kaname; Ueda, Takeo

CS Fac. Pharm. Sci., Kitasato Univ., Tokyo, Japan

SO Chemical & Pharmaceutical Bulletin (1975), 23(10), 2427-31 CODEN: CPBTAL; ISSN: 0009-2363

DT Journal

LA French

OS CASREACT 84:30999

Pyrimidines I (R = Cl, Br, Rl = Me, Ph, R2 = NH2, Me, NHCN) were prepared by treating the benzofurans II with R2C(:NH)NH2. III (X = S) were similarly obtained with thiourea. Hydrolysis of I (R = Cl, Br, Rl = Me, R2 = NHCN) gave III (X = O), whereas I (R = Cl, Br, Rl = Ph, R2 = NHCN) gave I (R2 = NHCONH2). Reaction of II with N2H4 gave the pyrazoles IV. II were prepared by treating 5,2-R(HO)C6H3CHO with ClCH2COMe, reducing the 2-acetyl-5-halobenzofurans, and the Friedel-Crafts acylation of the 2-ethyl-5-halobenzofurans.

IT 57832-35-6P 57832-36-7P 57832-37-8P

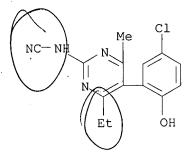
57832-38-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrolysis of)

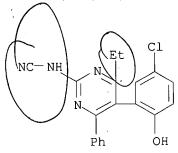
RN 57832-35-6 CAPLUS

CN Cyanamide, [5-(5-chloro-2-hydroxyphenyl)-4-ethyl-6-methyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 57832-36-7 CAPLUS

CN Cyanamide, [5-(5-chloro-2-hydroxyphenyl)-4-ethyl-6-phenyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 57832-37-8 CAPLUS

CN Cyanamide, [5-(5-bromo-2-hydroxyphenyl)-4-ethyl-6-methyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)



RN 57832-38-9 CAPLUS

CN Cyanamide, [5-(5-bromo-2-hydroxyphenyl)-4-ethyl-6-phenyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

IT 57832-23-2P 57832-24-3P 57832-25-4P

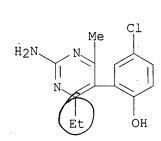
57832-26-5P 57832-41-4P 57832-42-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 57832-23-2 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-4-chloro- (9CI) (CA INDEX NAME)



RN 57832-24-3 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-phenyl-5-pyrimidinyl)-4-chloro- (9CI) (CA INDEX NAME)

RN 57832-25-4 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-4-bromo- (9CI) (CA INDEX NAME)

RN 57832-26-5 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-phenyl-5-pyrimidinyl)-4-bromo- (9CI) (CA INDEX NAME)

RN 57832-41-4 CAPLUS

CN Urea, [5-(5-chloro-2-hydroxyphenyl)-4-ethyl-6-phenyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

RN 57832-42-5 CAPLUS

CN Urea, [5-(5-bromo-2-hydroxyphenyl)-4-ethyl-6-phenyl-2-pyrimidinyl]- (9CI) (CA INDEX NAME)

L12 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1975:156365 CAPLUS

DN 82:156365

TI Pyrimidine derivatives

IN Schweizer, Ernst; Frei, Joerg; Ilvespaeae, Atso

PA Ciba-Geigy A.-G., Switz.

SO Ger. Offen., 46 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2439283	A1	19750227	DE 1974-2439283	19740816
DK 7403975	A	19750428	DK 1974-3975	19740723
SE 7410028	Α	19750225	SE 1974-10028	19740805
NL [.] 7410688	A	19750226	NL 1974-10688	19740808
US 3947441	A	19760330	US 1974-498906	19740820
FR 2241317	A1	19750321	FR 1974-28857	19740822
FR 2241317	B1 .	19780630		
AU 7472590	A	19760226	AU 1974-72590	19740822
BE 819146	A1	19750224	BE 1974-147867	19740823
AT 7406859	A	19770115	AT 1974-6859	19740823
JP 50049289	A	19750501	JP 1974-97464	19740824
CH 1973-12198	A	19730824	•	
CH 1974-9507	A	19740710		
	DE 2439283 DK 7403975 SE 7410028 NL 7410688 US 3947441 FR 2241317 FR 2241317 AU 7472590 BE 819146 AT 7406859 JP 50049289 CH 1973-12198	DE 2439283 A1 DK 7403975 A SE 7410028 A NL 7410688 A US 3947441 A FR 2241317 A1 FR 2241317 B1 AU 7472590 A BE 819146 A1 AT 7406859 A JP 50049289 A CH 1973-12198 A	DE 2439283 A1 19750227 DK 7403975 A 19750428 SE 7410028 A 19750225 NL 7410688 A 19750226 US 3947441 A 19760330 FR 2241317 A1 19750321 FR 2241317 B1 19780630 AU 7472590 A 19760226 BE 819146 A1 19750224 AT 7406859 A 19770115 JP 50049289 A 19750501 CH 1973-12198 A 19730824	DE 2439283 A1 19750227 DE 1974-2439283 DK 7403975 A 19750428 DK 1974-3975 SE 7410028 A 19750225 SE 1974-10028 NL 7410688 A 19750226 NL 1974-10688 US 3947441 A 19760330 US 1974-498906 FR 2241317 A1 19750321 FR 1974-28857 FR 2241317 B1 19780630 AU 7472590 A 19760226 AU 1974-72590 BE 819146 A1 19750224 BE 1974-147867 AT 7406859 A 19770115 AT 1974-6859 JP 50049289 A 19750501 JP 1974-97464 CH 1973-12198 A 19730824

AB Eight pyrimidines I [R = NH2, or (tetrahydropyran-2-yloxy)amino; R1 = (tetrahydropyran-2-yloxy)amino, HONH, or PhCH2ONH; R2 = 3,4,5-(MeO)3 or 4-C1; R3 = H or Et] useful as antimalarial and antibacterial agents, were prepared by refluxing I (R = NH2, R1 = Cl or R = R1 = Cl) with HONH2 or ethers thereof in MeCN optionally followed by ether cleavage.

IT 55694-06-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with hydroxylamines)

RN 55694-06-9 CAPLUS

CN 2-Pyrimidinamine, 4-chloro-5-(4-chlorophenyl)-6-ethyl- (9CI) (CA INDEX NAME)

L12 ANSWER 30 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1974:505428 CAPLUS

DN 81:105428

TI Nitro derivatives of biological interest. IX. Synthesis of 2-nitramino pyrimidines from chromones and benzofurans

AU Pene, Cecile; Hubert-Habart, Michel; Royer, Rene

CS Fond. Curie, Inst. Radium, Paris, Fr.

SO European Journal of Medicinal Chemistry (1974), 9(2), 202-4 CODEN: EJMCA5; ISSN: 0223-5234

DT Journal

LA French

AB Nitraminopyrimidines I (R = H, NO2; R1 = H, Et, Ph, NH2) were prepared in 56-99% yield by treating the benzofurans II (R2 = CHO, CH(OAc)2, COEt, Bz, CN) with nitroguanidine. III (R1 = H, Ph; R3 = H, Me) similarly were prepared from the chromones IV. Treatment of I and III with N2H4 gave 2-hydrazinopyridines, which with NaNO2 gave either 2-azidopyrimidines or tetrazolopyrimi-dines.

IT 53511-37-8P 53511-38-9P 53511-39-0P

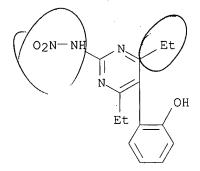
53511-40-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with hydrazine)

RN 53511-37-8 CAPLUS

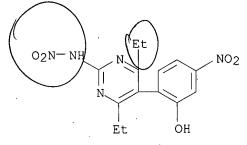
CN Phenol, 2-[4,6-diethyl-2-(nitroamino)-5-pyrimidinyl]- (9CI) (CA INDEX NAME)



no utility

RN 53511-38-9 CAPLUS

CN Phenol, 2-[4,6-diethyl-2-(nitroamino)-5-pyrimidinyl]-5-nitro- (9CI) (CA INDEX NAME)



RN 53511-39-0 CAPLUS

CN Phenol, 2-[4-ethyl-2-(nitroamino)-6-phenyl-5-pyrimidinyl]- (9CI) (CA INDEX NAME)

RN 53511-40-3 CAPLUS

CN Phenol, 2-[4-ethyl-2-(nitroamino)-6-phenyl-5-pyrimidinyl]-5-nitro- (9CI) (CA INDEX NAME)

IT 53511-48-1P 53511-49-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with nitrite)

RN 53511-48-1 CAPLUS

CN 2(1H)-Pyrimidinone, 4,6-diethyl-5-(2-hydroxyphenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 53511-49-2 CAPLUS

f .CN 2(1H)-Pyrimidinone, 4-ethyl-5-(2-hydroxy-4-nitrophenyl)-6-phenyl-, hydrazone (9CI) (CA INDEX NAME)

IT 53511-51-6P 53511-55-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 53511-51-6 CAPLUS

CN Benzaldehyde, [4,6-diethyl-5-(2-hydroxyphenyl)-2-pyrimidinyl]hydrazone (9CI) (CA INDEX NAME)

RN 53511-55-0 CAPLUS

CN Phenol, 2-(2-azido-4-ethyl-6-phenyl-5-pyrimidinyl)-5-nitro- (9CI) (CA INDEX NAME)

L12 ANSWER 31 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1974:437530 CAPLUS

DN 81:37530

TI Antitumor agents. VIII. Formation from creatine of some pyrimidines substituted by an amino acid chain

AU Menichi, Gabriel; Hubert-Habart, Michel; Royer, Rene

CS Inst. Radium, Fond. Curie, Paris, Fr.

SO European Journal of Medicinal Chemistry (1974), 9(1), 11-13 CODEN: EJMCA5; ISSN: 0223-5234

DT Journal

LA French

AB Pyrimidines I (R = OH, R1 = CO2Et, R2 = H; R = Me, R1 = CO2H, R2 = H) were obtained by cyclizing creatine with EtOCH:CR2CO2Et (R2 = CO2Et, Ac). I (R = H, R1 = Me, R = Me, R1 = H, R2 = C6H4OH-o) similarly were obtained from chromones and I (R = R2 = Et, R1 = C6H4OH-o) from 2-ethyl-3-propionylbenzofuran. Reaction of arginine with 3-methylchromone gave a similar compound, probably II.

IT 52872-46-5P

RN 52872-46-5 CAPLUS

CN Glycine, N-[4,6-diethyl-5-(2-hydroxyphenyl)-2-pyrimidinyl]-N-methyl- (9CI) (CA INDEX NAME)

L12 ANSWER 32 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1973:505183 CAPLUS

DN 79:105183

TI Nitro derivatives of biological interest. VI. Synthesis of 5-(2-hydroxy-4-nitrophenyl)pyrimidines from nitro derivatives of benzofurans substituted in the 3-position by an electroattractive group

AU Hubert-Habart, Michel; Pene, Cecile; Bastian, Gerard; Royer, Rene

CS Serv. Chim., Fond. Curie-Inst. Radium, Paris, Fr.

SO Chimica Therapeutica (1973), 8(3), 314-18 CODEN: CHTPBA; ISSN: 0009-4374

DT Journal

LA French

Pyrimidines I (R = H, Me, Et, Ph, NH2; R1 = NH2, Me) were prepared in 70-90% yield and II (X = O, S) in 9-99% yield by nitrating the benzofurans III (R2 = CHO, Ac, COEt, COPh, CN; R3 = H) in 43-60% yield and treating III (R3 = NO2) with R1C(:NH)NH2 or CX(NH2)2.

IT 42902-01-2P 42902-05-6P 42902-09-0P RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 42902-01-2 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-5-nitro- (9CI) (CA INDEX NAME)

RN 42902-05-6 CAPLUS

CN Phenol, 2-(2-amino-4,6-diethyl-5-pyrimidinyl)-5-nitro- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{H}_2\text{N} & \text{Et} \\ \text{N} & \text{N} \\ \text{Et} & \text{OH} \end{array}$$

RN 42902-09-0 CAPLUS

CN Phenol, 2-(2-amino-4-ethyl-6-phenyl-5-pyrimidinyl)-5-nitro- (9CI) (CA INDEX NAME)

L12 ANSWER 33 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:75908 CAPLUS

DN 74:75908

TI Dimroth rearrangement. XIII. The small effect of p-substitution on rearrangement rates for 1,2-dihydro-2-imino-1-methyl-5-phenylpyrimidines

AU Brown, Desmond J.; England, B. T.

CS John Curtin Sch. Med. Res., Aust. Natl. Univ., Canberra, Australia

SO Journal of the Chemical Society [Section] C: Organic (1971), (2), 250-6 CODEN: JSOOAX; ISSN: 0022-4952

DT Journal

LA English

ΙT

AB The rates of Dimroth rearrangement of the title p-substituted phenylpyrimidines (I) were measured. The resonance effect of the p-substituents are attenuated by the considerable interplanar angle between the benzene and pyrimidine rings, but the rates decreased in the order NO2 > F > Cl > Br > Me > OMe > NH2 > NMe2, following qual. the σ values for the groups. The 4,6-dimethyl I derivs. (II), for which UV and pKa indicate even less through-conjugation, behaved similarly. The rearrangement of 1,2-dihydro-2-imino-1,6-dimethylpyrimidne was faster than that of its 1,4-dimethyl isomer. II were prepared from AcCHPhAc via 4,6-dimethyl-2-(methylsulfonyl)-5-phenylpyrimidine and 4,6-dimethyl-2-(methylamino)-5-phenylpyrimidine.

4,6-dimetry:-2-(metry:amino)-3-pheny:py: 31458-11-4P 31458-13-6P 31464-55-8P

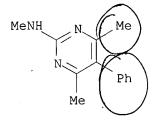
31464-56-9P 31464-57-0P 31464-58-1P

31464-66-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

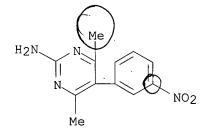
RN 31458-11-4 CAPLUS

CN Pyrimidine, 4,6-dimethyl-2-(methylamino)-5-phenyl- (8CI) (CA INDEX NAME)



RN 31458-13-6 CAPLUS

CN Pyrimidine, 2-amino-4,6-dimethyl-5-(m-nitrophenyl)- (8CI) (CA INDEX NAME)



RN 31464-55-8 CAPLUS

CN Pyrimidine, 2-amino-4,6-dimethyl-5-(p-nitrophenyl)- (8CI) (CA INDEX NAME)

RN 31464-56-9 CAPLUS

CN Pyrimidine, 4,6-dimethyl-2-(methylamino)-5-(p-nitrophenyl)- (8CI) (CA INDEX NAME)

RN 31464-57-0 CAPLUS

CN Pyrimidine, 2-amino-5-(p-aminophenyl)-4,6-dimethyl- (8CI) (CA INDEX NAME)

RN 31464-58-1 CAPLUS

CN Pyrimidine, 5-(p-aminophenyl)-4,6-dimethyl-2-(methylamino)- (8CI) (CA INDEX NAME)

RN 31464-66-1 CAPLUS

CN Pyrimidine, 2-amino-5-[p-(dimethylamino)phenyl]-4,6-dimethyl- (8CI) (CA INDEX NAME)

L12 ANSWER 34 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1971:3578 CAPLUS

DN 74:3578

TI Antitumor agents. IV. Formation of new pyrimidines from benzofurans substituted in position 3 by an electron attracting group

AU Takagi, Kaname; Hubert-Habart, Michel

CS Fac. Pharm., Univ. Kitasato, Tokyo, Japan

SO Chimica Therapeutica (1970), 5(4), 264-9 CODEN: CHTPBA; ISSN: 0009-4374

DT Journal

LA French

OS CASREACT 74:3578

AB I (R = CHO, Ac, COEt, or Bz) was condensed with N(guanidinoiminomethyl)morpholine to give II (R = CHO, Ac, COEt, or Bz). I
(R = CHO) also gave I (R = 2-imino-6-morpholino-1,2,3,4-tetrahydro-striazin-4-yl). With H2NC(:NH)NHCN in the presence of NaOEt, I gave III,
and I (R = CN) gave III (R = NH2) and I (R = 2,4-diimino-1,2,3,4tetrahydro-s-triazin-6-yl). III (R = NH2) reacted with morpholine to give
II (R = NH2). I (R = CO2Et) was unreactive under these conditions.

IT 29936-02-5P 29936-03-6P 29936-05-8P 29936-06-9P 29936-07-0P 30041-99-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 29936-02-5 CAPLUS

CN 4-Morpholinecarboxamidine, N-[4-ethyl-5-(o-hydroxyphenyl)-6-methyl-2-pyrimidinyl]- (8CI) (CA INDEX NAME)

RN 29936-03-6 CAPLUS

CN 4-Morpholinecarboxamidine, N-[4-ethyl-5-(o-hydroxyphenyl)-6-phenyl-2-pyrimidinyl]- (8CI) (CA INDEX NAME)

RN 29936-05-8 CAPLUS

CN 4-Morpholinecarboxamidine, N-[4,6-diethyl-5-(o-hydroxyphenyl)-2pyrimidinyl]- (8CI) (CA INDEX NAME)

RN 29936-06-9 CAPLUS

CN 2-Pyrimidinecarbamonitrile, 4,6-diethyl-5-(o-hydroxyphenyl)- (8CI) (CA INDEX NAME)

RN 29936-07-0 CAPLUS

CN 2-Pyrimidinecarbamonitrile, 4-ethyl-5-(o-hydroxyphenyl)-6-phenyl- (8CI) (CA INDEX NAME)

RN 30041-99-7 CAPLUS

CN 2-Pyrimidinecarbamonitrile, 4-ethyl-5-(o-hydroxyphenyl)-6-methyl- (8CI) (CA INDEX NAME)

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L12
     ANSWER 35 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1969:37765 CAPLUS
DN
     70:37765
TΙ
      5 (or 6)-Polyhydroxyphenyl pyrimidines
ΑU
     Hubert-Habart, Michel; Menichi, Gabriel; Takaqi, Kaname; Cheutin, Andree;
     Desvoye, Marie L.; Royer, Rene
      Inst. Radium, Fond. Curie, Paris, Fr.
CS
SO
     Chimica Therapeutica (1968), 3(4), 280-8
     CODEN: CHTPBA; ISSN: 0009-4374
DT
     Journal
LA
      French
AB
     The synthesis of the title compds. is described. Thus, 100 q.
      2-formyl-4-methoxyphenol was refluxed 1 hr. with 70 g. chloroacetone and
     75 g. K2CO3 in 250 ml. Me2CO to give 67% I (R = Ac, R1 = R2 = H, R3 =
     OMe), m. 75^{\circ}, which on reduction in the presence of N2H4·H2O in
     diethylene glycol gave 65.5\% I (R = Et, R1 = R2 = H, R3 = OMe) (II), b30
     151-2°, n20D 1.5568, from the organic phase and 2% 2-ethyl-5-hydroxybenzofuran, m. 74-5° (2-ethyl-3-acetyl-5-acetoxybenzofuran derivative m. 86-7°), from the aqueous phase. II on
     acetylation with AcCl in C6H6 in the presence of SnCl4 and AlCl3 gave a mixture of isomers, b22 195-6^{\circ}, n22D 1.5771, which on boiling with NaOH and EtOH gave I (R = Et, R1 = H, R2 = Ac, R3 = OMe) (III), b22
     195-6^{\circ}, n22D 1.5770. The isomer mixture containing III and I (R = Et, R1
     = Ac, R2 = H, R3 = OMe) (IV) was refluxed with guanidine-HCl (V) in the
     presence of alc. NaOMe. The organic phase gave III and the aqueous phase was
     treated with NaHCO3 to give 90% VI (R = NH2, R1 = Me), m. 197-8^{\circ}.
      Similar treatment with thiourea, acetamidine, and urea instead of V gave
     VII (X = S, R = Me), m. 212^{\circ}; VI (R = R1 = Me), m. 126^{\circ}; and VII (X = O, R = Me), m. 308^{\circ}, resp. Demethylation of III and IV
      gave the corresponding hydroxylated ketones, m. 122° and
      176°, resp. Methylation of 2-ethyl-3-acetyl-3-hydroxybenzofuran
     with Me2SO4 gave IV, b11 177°. VI and VII could be demethylated to
      5-(2,5-dihydroxyphenyl) pyrimidines by HBr. VIII (R = R1 = Me, R2 = H), m.
     159-60°, was prepared by refluxing quercitin (IX) with KOH and MeI in
     MeOH. VIII (R = R1 = R2 = Me) (X), m. 151-2°, was prepared by
     refluxing 2 g. IX and 10 g. Me2SO4 in 300 ml. Me2CO containing 30 g. K2CO3 21
     hrs. X on degradation with NaOH gave 4-methoxy-acetylpyrocatechol di-Me
     ether, m. 62-3^{\circ}, and methoxy-acetylphloroglucinol di-Me ether, m.
      102°, from the organic phase and veratric acid, m. 181-2°, from
     the aqueous phase. X on treatment with NaOMe gave 89% VIII (R = R1 = Me, R2 =
     Et) (XI), m. 170°. X on treatment with V, thiourea, or acetamidine
     gave XII (R = NH2, R1 = Me), m. 196^{\circ}; XIII (R = Me), m. 245^{\circ}; and XII (R = R1 = Me), m. 162^{\circ}, resp. XI on similar
     treatment with IV and thiourea gave XII (R = NH2, R1 = Et), m. 198°
      and XIII (R = Et), m. 188°, resp. XI on NaOH degradation gave
      2-methoxyacetyl-3-ethoxy-5-methoxyphenol, m. 106-7°. VIII (R = R2)
     = Me, R1 = Et) (XIV), m. 154-5^{\circ}, was prepared by refluxing a solution of
     VIII (R = R2 = Me, R1 = H), m. 197-8^{\circ}, with Et2SO4 in Me2CO. XIV
      on degradation with NaOH gave ethoxyacetylphloroglucinol di-Me ether, m.
      99-100°. XIV on transesterification with NaOMe gave
      3',4',7-trimethoxy-3,5-diethoxyflavone, m. 164-5°, which on
      refluxing with alc. NaOH gave 2-ethoxyacetyl-3-ethoxy-5-methoxyphenol, m.
      82-3°. The ir spectra of the compds. prepared are discussed.
ΙT
      21587-44-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
         (preparation of)
RN
     21587-44-0 CAPLUS
      Phenol, 2-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-4-methoxy- (8CI)
CN
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INDEX NAME)

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ANSWER 36 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     .1967:443775 CAPLUS
DN
     67:43775
OREF 67:8231a,8234a
ΤI
     Benzofuran. XXVIII. Nucleophilic reaction of the heterocyclic ring of
     benzofurans substituted at position 3 by an electron-attracting group, and
     its application to the synthesis of pyrazoles, isoxazoles, and pyrimidines
ΑU
     Hubert-Habart, Michel; Takagi, Kaname; Cheutin, Andree; Royer, Rene
     Inst. Radium, Fond. Curie, Paris, Fr.
CS
     Bulletin de la Societe Chimique de France (1966), (5), 1587-98
     CODEN: BSCFAS; ISSN: 0037-8968
DT
     Journal
LA
     French
OS
     CASREACT 67:43775
     cf. CA 64: 19580b; preceding abstract  The degradation of benzofuran
AΒ
     substituted at position 3 by an electron-attracting group not containing a
     carbonyl residue is more difficult (with smaller yield product) than the
     degradation of the formyl or acyl analogs. Consequently, the 1,2-bond of
     3-formyl or acyl benzofurans (I) was broken with NH3 to give
     (2-hydroxyphenyl)-\beta-enamino ketones (II) which regenerated the
     initial I by losing NH3 either spontaneously, or on heating, or on
     treating with dilute HCl. The 2-ethyl-3-acetyl benzofuran (I, R = Et, R' =
     Me) (III) and its isomer I (R = Me, R' = Et) (IV) gave two different
     \beta-enamino ketones while 2-ethyl-3-formylbenzofuran I (R = Et, R' = H)
     (V) and its isomer I (R = H, R' = Et) (VI) afforded the same II. However,
     3-cyano (VII), 2-ethyl-3-cyano (VIII), and 2-ethyl-3-carbethoxybenzofuran
     (IX) did not undergo this degradation. Thus, the following II were prepared
     by passing NH3 for 1.5 hrs. into a cold solution of I in absolute EtOH (R, R',
     and m.p. given): Et, Et, 101°; Et, Me, 117-19°; Me, Et,
     147-9°; H, Et, 156°. Benzofurans bearing at position 3 a
     CN, formyl, or acyl group were degraded in alkaline medium in the same way as
     the 3-carbonyl benzofuran (CA 55: 505b). The reaction was carried in aqueous
     alc. with 3 moles NaOH. Alternatively, 2-ethyl-3-carboxy- and -
     2-ethyl-3-amido benzofurans and IX were not degraded by alkali but rather
     saponified. Thus, VIII gave 2'-hydroxyphenylacetic acid, m. 139°,
     while V and VI gave the same 2-hydroxybenzyl ethyl ketone, m. 50°.
     With NH2OH, in neutral or alkaline medium, III and IV gave two different
     isoxazoles, resp., 3-ethyl-4-(2-hydroxyphenyl)-5-methylisoxazole, m.
     111° (CA 59: 15265f), and 3-methyl-4-(2-hydroxyphenyl)-5-
     ethylisoxazole, m. 111°, mixed m. 85-90°. Similarly, VIII
     reacted with NH2OH in neutral medium to give 12% 3-ethyl-4-(2-
     hydroxyphenyl)-5-aminoisoxazole, m. 146°. I, VIII, and IX were
     degraded to pyrazoles (X) by the action of NH2NHR" (R" = H, Me, CONH2, or
     CSNH2). In the case of hydrazine hydrate each pair of the isomers III and
     IV as well as V and VI gave the same pyrazole while with methylhydrazine
     each of III, IV, V, and VI gave different pyrazoles. Furthermore,
     2-ethyl-3-propionyl benzofuran I (R = R' = Et) gave only one identical
     pyrazole with hydrazine hydrate, semicarbazide, and thiosemicarbazide in
     alkaline medium. The following X were prepared (R, R', R", and m.p. given):
Et,
     H, H, 136°; Et, Me, H, 115-18°; Et, NH2, H, 160°; Et,
     OH, H, 197°; H, Et, Me, 132-4°; Et, H, Me, 145-8°; Et, Me, Me, 173°; Me, Et, Me, 147-50°; Et, NH2, Me, 207°; Et, Et, H (or CONH2 or CSNH2), 125°. However, VII,
     2-ethyl-3-carboxy benzofuran and its amide were not degraded to pyrazole
     with hydrazine hydrate. Guanidine carbonate or -HCl, urea, and thiourea
     reacted with I, VII, and VIII to give pyrimidines. Thus guanidine, even
     in the absence of another alkaline reagent, gave the following
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aminopyrimidines (XI) (R, R', and m.p. given): Et, H, 178-80°; Et,

Me, 251°; Et, Et, 216°; Et, p-C6H4OMe, 206°; Ph, Me,

257°; H, NH2, 297°; Et, NH2, 239°. With thiourea and urea, the reaction was carried out in a dry medium in the presence of EtONa and EtOH to give the following 1,2-dihydropyrimidines (XII) (Z, R, R', and m.p. given): S, Et, H, 216°; S, Et, Me, 240°; S, Et, Et, 213°; Et, p-C6H4OMe, 225°; S, Ph, Me, 266-8°; S, H, NH2, >300° XIII; S, Et, NH2, >320° XIV; O, Et, Me, 269-71°; O, Et, Et, 288°; O, Et, p-C6H4OMe, 287°; O, Ph, Me, 280°. Also, XII [Z, R, R', and m.p. given): O, H, NH2, 310°; O, Et, NH2, 302°] were obtained by condensing XIII and XIV, resp., with ClCH2CO2H in 20 cc. H2O followed by hydrolysis of the product with 10 cc. 2N H2SO4. However, with guanidin.-HCl and thiourea, IX gave, resp., 2-amino-3,4-dihydro-4-oxo-5-(2-hydroxyphenyl)-6-ethylpyrimidine, m. 283°, and 1,2,3,4-tetrahydro-2-thio-4-oxo-5-(2-hydroxyphenyl)-6-ethylpyrimidine, m. 270°. The ir spectra of I, II, X, XI, and XII are given.

IT 1901-71-9P 1980-87-6P 1980-88-7P 14716-08-6P

RN 1901-71-9 CAPLUS

CN Phenol, o-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)- (7CI, 8CI) (CA INDEX NAME)

RN 1980-87-6 CAPLUS

CN Phenol, o-(2-amino-4,6-diethyl-5-pyrimidinyl)- (7CI, 8CI) (CA INDEX NAME)

RN 1980-88-7 CAPLUS

CN Phenol, o-[2-amino-4-ethyl-6-(p-methoxyphenyl)-5-pyrimidinyl]- (7CI, 8CI) (CA INDEX NAME)

RN 14716-08-6 CAPLUS
CN Phenol, o-(2-amino-4-methyl-6-phenyl-5-pyrimidinyl)- (8CI) (CA INDEX NAME)

L12 ANSWER 37 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1967:418079 CAPLUS

DN 67:18079

OREF 67:3419a,3422a

TI Irreversible enzyme inhibitors. LXXXV. On the mode of pyrimidine binding of 5-alkyl and 5-arylpyrimidines to dihydrofolic reductase

AU Baker, Bernard Randall; Lourens, Gerhardus J.; Jordaan, Johannes H.

CS Univ. of California, Santa Barbara, CA, USA

SO Journal of Heterocyclic Chemistry (1967), 4(1), 39-48 CODEN: JHTCAD; ISSN: 0022-152X

DT Journal

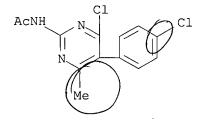
LA English

AB cf. preceding abstract A series of 5-isoamyl- and 5-(pchlorophenyl)pyrimidines substituted with amino, alkylamino, mercapto, benzyloxy, hydroxy, or hydrogen at the 2- and 4-positions and with amino or methyl at the 6-position have been synthesized for evaluation of the mode of pyrimidine binding to dihydrofolic reductase. The studies were performed in order to determine where a bulky group could be placed on the pyrimidine ring that would still allow good binding; such studies are essential to find a suitable position for placement of a covalent forming group for design of active-site-directed irreversible inhibitors. classes of candidate compds. have emerged for further study as irreversible inhibitors, namely, 2-amino-4-mercapto-6-(pbromoacetamidophenylalkyl)pyrimidines (I) and 2,4-diamino-6-(pbromoacetamidophenylalkyl)aminopyrimidines having a group such as phenyl, phenylbutyl or isoamyl at the 5-position that can give strong hydrophobic bonding to the enzyme. 27 references.

IT 17001-93-3P

RN 17001-93-3 CAPLUS

CN Acetamide, N-[4-chloro-5-(p-chlorophenyl)-6-methyl-2-pyrimidinyl]- (8CI) (CA INDEX NAME)



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ANSWER 38 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
L12
ΑN
     1965:431681 CAPLUS
DN
      63:31681
OREF 63:5639b-f
     Investigation of benzofuran. Formation of 5-(2-hydroxyphenyl)pyrimidines
      from benzofurans substituted in the 3-position by an electrophilic group
AU
     Takagi, Kaname; Hubert-Habart, Michel; Royer, Rene
CS
      Inst. Radium, Paris
SO
     Compt. Rend. (1965), 260(20(Groupe 8)), 5302-5
DT
     Journal
LA
     French
AΒ
     The benzofurans I (R = H, Me, Et, p-MeOC6H4) refluxed 24 hrs. in EtOH in
      the presence of NaOEt with excess (H2N)2C:NH (II), CS(NH2)2 (III), and
     urea yielded the corresponding IV, V, and VI, resp., listed in the table.
     I (R = H) treated with urea in the presence of NaOH or NaOEt gave only
     o-HOC6H4CH2COEt, m. 49-50°; semicarbazone m. 174°. R, IV,
     M.p., % yield, M.p., V, % yield, VI, M.p., % yield; H, 178-80°, 60, 215-16°, 21, -, 0; Me, 251°, 52.5, 240°, 52.5, 269-71°, 2.5; Et, 216°, 68, 231°, 43, 288°, 8.5; p-MeOC6H4, 205-6°, 55, 223-6°, 27, 287°, 5;
     3-Cyano-2-ethylbenzofuran (VII) refluxed 5 hrs. with excess alc. NaOH gave
     the 3-CO2H analog (VIII) and the 3-CONH2 analog (IX) of VII, as well as
     o-HOC6H4CO2H and o-HOC6H4CH2CN (X). This sensitivity to alkaline reagents can
     be utilized for the synthesis of pyrimidines. VII treated with II and III
     in the presence of NaOEt yielded IV (R = NH2), m. 238-9^{\circ}, 58\%, and
     V (R = NH2), decomposed at about 285°, 35%, resp. VII and urea under
     the same conditions gave only IX and X. 3-Carbethoxy-2-ethylbenzofuran
      (XI) was saponified by NaOH to VIII. XI with II and III in the presence of
     base yielded 52% 2-amino-3,4-dihydro-4-oxo-5-(o-hydroxyphenyl)-6-ethylpyrimidine, m. 282-3°, and 8% 1,2,3,4-tetrahydro-2-thio-4-oxo-
      5-(o-hydroxyphenyl)-6-ethylpyrimidine, m. 269-70°. V (R = Et)
      (XII) with ClCH2CO2H yielded 2-carboxymethylthio-4,6-diethyl-5-(o-
     hydroxyphenyl)pyrimidine which hydrolyzed gave XII.
     1901-71-9P, Phenol, o-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)-1980-87-6P, Phenol, o-(2-amino-4,6-diethyl-5-pyrimidinyl)-
IT
     1980-88-7P, Phenol, o-[2-amino-4-ethyl-6-(p-methoxyphenyl)-5-
     pyrimidinyl]-
     RL: PREP (Preparation)
         (preparation of)
RN
     1901-71-9 CAPLUS
CN
     Phenol, o-(2-amino-4-ethyl-6-methyl-5-pyrimidinyl)- (7CI, 8CI) (CA INDEX
     NAME)
```

RN 1980-87-6 CAPLUS CN Phenol, o-(2-amino-4,6-diethyl-5-pyrimidinyl)- (7CI, 8CI) (CA INDEX NAME)

RN 1980-88-7 CAPLUS
CN Phenol, o-[2-amino-4-ethyl-6-(p-methoxyphenyl)-5-pyrimidinyl]- (7CI, 8CI)
(CA INDEX NAME)

L12 ANSWER 39 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1959:72667 CAPLUS

DN 53:72667

OREF 53:13184b-d

TI Sodium salts of barbituric and thiobarbituric acid derivatives

PA Societe financiere de placements S. A.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
DT	GB 800886	1050000	OD 1056 13405	10560501
AB			3 GB 1956-13425 obarbituric acid (II) de	19560501 erivs. in the
	form of dry, ligh	it foams, readily	soluble in H2O are produ	uced in sealed.
	ampule The does	rod colid I or II	$\frac{1}{2}$ discoluted in 1 2/9 a	augaga Na

form of dry, light foams, readily soluble in H2O are produced in sealed ampuls. The desired solid I or II is dissolved in 1-2/% excess Na alcoholate, filtered and diluted with alc., and the required volume used for filling the ampuls which are then placed in a heated vacuum oven with a shaking device. At 30-50° and 140-150 mm. about 0.5 the volume is evaporated, the pressure is then reduced to 10 mm.; the agitation is stopped when the solids foam in the ampuls. After complete removal of alc. the ampuls are quickly sealed.

IT 106472-60-0

(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 106472-60-0 CAPLUS

CN Pyrimidine, 2-acetamido-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI) (CA INDEX NAME)

L12 ANSWER 40 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

1959:72666 CAPLUS ΔN

53:72666 DN

OREF 53:13183h-i,13184a-b

2-Amino-4-chloro-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine

ΙN Jacob, Robert M.

PΑ Societe des usines chimiques de Rhone-Poulenc

DΤ Patent

LA Unavailable

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ------

DE 954250

19561213 DE

AB New pyrimidine derivs. are obtained. Guanidine carbonate (18.7 g.) is dissolved in portions in 70 ml. 20% oleum at 0°, 30 g. I added (prepared by condensation of EtCO2Et with 3,4-dichlorobenzyl cyanide in the presence of alkaline agents and subsequent treatment with EtOH) at -10 to -20°, warmed to room temperature, and heated 2 hrs. at 50-5°. After cooling, the mixture is poured into cold, aqueous Na2CO3, the solid mass filtered off and purified by dissolving in 2N NaOH, filtering, precipitating

with

AcOH, filtering off the precipitate, washing with H2O, and drying in air to yield

22.5 g. 2-amino-4-hydroxy-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine (II), m. $180-90^{\circ}$ solidified and m. $230-40^{\circ}$. II (10 g.), 8 ml. Ac20 and 40 ml. anhydrous C5H5N is refluxed 2 hrs., concentrated in vacuo, dissolved in H2O, acidified with HCl to Congo red, the precipitate filtered off with suction, washed with H2O, and dried in vacuo to yield 10.3 g. 2-acetylamino-4-hydroxy-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine (III), m. 250°. III is heated 1 hr. with 8 ml. POCl3 to 55-60° poured into ice H2O, neutralized with NH4OH, filtered off with suction, washed with H2O, and dried in vacuo to give 10.8 g. 2-acetylamino-4-chloro-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine, m. 200°. Hydrolysis with NaOH in EtOH gives 2-amino-4-chloro-5-(3',4'-dichlorophenyl)-6ethylpyrimidine, m. 166°.

IT100124-03-6P, Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- 106472-60-0P, Pyrimidine, 2-acetamido-4-chloro-5-(3,4dichlorophenyl)-6-ethyl-

RL: PREP (Preparation)

(preparation of)

RN 100124-03-6 CAPLUS

Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI) CN INDEX NAME)

RN 106472-60-0 CAPLUS

CN Pyrimidine, 2-acetamido-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI) . (CA INDEX NAME)

L12ANSWER 41 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN AN1959:29222 CAPLUS DN 53:29222 OREF 53:5302h-i,5303a TIPyrimidine derivatives Jacob, Robert M. ΙN PA Societe des usines chimiques de Rhone-Poulenc DT LA Unavailable FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE PΊ FR 1082744 19541231 FR 19530521 AΒ 2-Acetamido-4-chloro-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine (I) (5 g.), 14 cc. iso-PrNH2, and 14 cc. EtOH heated 6 hrs. in a sealed tube at 180-5° gave 3.5 g. 2-amino-4-isopropylamino-5-(3',4'dichlorophenyl)-6-ethylpyrimidine, m. 193° (EtOH). A suspension of 8 g. I in 18 cc. HOCH2CH2OH treated with stirring at about 100° with a stream of Me2NH gave a solution on heating to 140°. Heating 30 min. more at 140° with a weak Me2NH stream bubbling through the solution, then cooling, filtering, washing the precipitate with EtOH, and drying in vacuo gave 6.3 g. 2-amino-4-dimethylamino-5-(3,4-dichlorophenyl)-6ethylpyrimidine, m. 203° (EtOH). Derivs. of the type prepared and their salts are very active against blood parasites, particularly plasmodia. Cf. preceding abstract ΙT 100124-03-6P, Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- 106472-60-0P, Pyrimidine, 2-acetamido-4-chloro-5-(3,4dichlorophenyl)-6-ethyl-RL: PREP (Preparation) (preparation of) 100124-03-6 CAPLUS RN Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI) CN INDEX NAME)

RN 106472-60-0 CAPLUS
CN Pyrimidine, 2-acetamido-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI)
(CA INDEX NAME)

Page 100

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L12 ANSWER 42 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
AN .
     1959:29221 CAPLUS
     53:29221
DN
OREF 53:5302f-h
TΤ
     Pyrimidine derivatives
ΤN
     Jacob, Robert M.
PA
     Societe des usines chimiques de Rhone-Poulenc
DT
     Patent
LA
     Unavailable
FAN.CNT 1
     PATENT NO.
                                DATE
                         KIND
                                             APPLICATION NO.
                                                                    DATE
     ___________
PΙ
     FR 1082743
                                19541231
                                            FR
                                                                    19530521
     EtO2CCH(3,4-C6H3Cl2)COEt (I) (30 g.) was added slowly at a temperature between
AB
     -10 and +20^{\circ} to a solution prepared at 0^{\circ} by addition of 18.7 g.
     guanidine carbonate to 70 cc. 20% oleum, the temperature allowed to rise to
room
     temperature, and then the mixture heated 2 hrs. to 50-5°. After cooling,
     the mixture was added with vigorous stirring to cold aqueous Na2CO3.
     Filtration, solution in 2N Na2CO3, separation of the insol. residue,
precipitation with
     AcOH, filtration, washing with water, and drying gave 22.5 g.
     2-amino-4-hydroxy-5-(3,4-dichlorophenyl)-6-ethylpyrimidine (II), m.
     180-90° and 230-40°. I, b0.2 123-30°, was obtained
     by the reaction of EtOH with 3,4-C6H3Cl2CH(CN)COEt, m. 106°.
     Refluxing 2 hrs. a mixture of 10 g. II, 8 cc. anhydrous AcOH, and 40 cc.
anhydrous
     pyridine gave a solution that was concentrated in vacuo. The residue was
taken up
     in water, the solution acidified with HCl (to Congo red), and the precipitate
     filtered off, washed with water, and dried in vacuo to give 10.3 g.
     2-acetamido-4-hydroxy-5-(3,4-dichlorophenyl)-6-ethylpyrimidine (III), m.
     250°. Heating III 1 hr. to 55-60° with 8 cc. POC13 gave a
     solution that was taken up with ice-water, and neutralized with cold NH3.
     The product obtained was filtered off, washed with water, and dried in
     vacuo to give 10.8 g. III 4-chloro derivative (IV), m. 200°. IV with
     NaOH in hot EtOH gave 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-
     ethylpyrimidine, m. 166°. Cf. following abstract
ΙT
     100124-03-6P, Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-
     6-ethyl- 106472-60-0P, Pyrimidine, 2-acetamido-4-chloro-5-(3,4-
     dichlorophenyl)-6-ethyl-
     RL: PREP (Preparation)
        (preparation of)
RN
     100124-03-6 CAPLUS
CN
     Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI)
     INDEX NAME)
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RN 106472-60-0 CAPLUS CN Pyrimidine, 2-acetamido-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI)

(CA INDEX NAME)

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L12 ANSWER 43 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1959:23429 CAPLUS
DN
     53:23429
OREF 53:4315e-h
TΙ
     2,4 - Diamino - 5 - (4' - chlorophenyl) - 6 - ethylpyrimidine
ΙN
     Jacob, Robert M.
PA
     Societe des usines chimiques de Rhone-Poulenc
SO
     Addn. to Fr. 1,070,420 (preceding abstr.)
DT
LA
     Unavailable
FAN.CNT 1
     PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                                                                       DATE
PΙ
                                  19550518
                                              FR
AΒ
     The title compound was prepared by a modification of the method of Fr.
     1,070,450. Thus, 55 g. dry NH:C(NH2)2.H2CO3 added portionwise to 197 cc.
     20% H2SO4 at 0°, 78.7 g. EtCOCH(p-ClC6H4)CO2Et added with stirring
     at -10°, the temperature allowed to rise and maintained 2 hrs. at
     50°, the resulting solution added to a stirred mixture containing 54 g.
     Na2CO3, 3.7 l. H2O and 1.7 kg. crushed ice, the precipitated solid filtered
off,
     washed with H2O, suspended in 225 cc. MeOH, neutralized with 5 cc.
     22°B.acte.e. NH3, the solid filtered off, washed with MeOH and H2O and dried at 100° gave 53 g. 2-amino-4-hydroxy-5-(4'-chlorophenyl)-
     6-ethylpyrimidine (I), m. 234^{\circ}. I (50 g.) refluxed 1.5 hrs. with
     30.6 g. Ac20 in 150 cc. C5H5N (Ia), Ia removed in vacuo, H2O added, the
     solution acidified (Congo red) with HCl, the precipitate filtered off, washed
with
     H2O and dried at 100° gave 53 g. 2-acetylamino derivative of I (II), m.
     260^{\circ} (264^{\circ} from EtOH). II (52 g.) with 100 cc. POCl3 heated
     5 hrs. at 70^{\circ}, excess POC13 removed in vacuo, the residue treated
     with 400 g. crushed ice, neutralized with NH4OH, the product filtered off,
     washed with H2O and dried gave 55 g. 2-acetylamino-4-chloro-5-(4'-
     chlorophenyl)-6-ethylpyrimidine (III) m. 232° (235° from
     EtOH). III (50 g.) autoclaved 6 hrs. at 155° with 250 cc. EtOH and
     200 g. NH3, the mixture cooled, the crystals filtered off, washed with EtOH
     and dried gave 34 g. title compound, m. 240° (241° from EtOH).
ΙT
     100716-90-3P, Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-
     6-ethyl-
     RL: PREP (Preparation)
        (preparation of)
RN
     100716-90-3 CAPLUS
     Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl- (6CI)
CN
     INDEX NAME)
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L12 ANSWER 44 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1959:23428 CAPLUS
DN
     53:23428
OREF 53:4315c-e
     2,4-Diamino-5-(4'-chlorophenyl)-6-ethylpyrimidine
     Jacob, Robert M.
PA
     Societe des usines chimiques de Rhone-Poulenc
DT
     Unavailable
LA
FAN.CNT 1
     PATENT NO.
                          KIND
                                 DATE
                                              APPLICATION NO.
                                                                      DATE
PΙ
     FR 1070420
                                 19540726
                                              FR
     \mbox{HN:C(NH2)}\ 2.\mbox{H2SO4.0.5H2O} (10.8 g.) added slowly to 43 cc. 20% \mbox{H2SO4} at
AΒ
     0^{\circ}, the solution treated portionwise with 24 g. EtCOCH(p-ClC6H4)CO2Et,
     the mixture allowed to heat to room temperature, heated 1 hr. at 80^{\circ},
     poured onto crushed ice, the precipitated solid taken up in 200 cc. H2O and 30
     cc. 36°B.acte.e. NaOH, and acidified with AcOH gave crude
     2-amino-4-hydroxy-5-(4'-chlorophenyl)-6-ethylpyrimidine (I), m.
     210° (250° from EtOH). I(11.5 g.) refluxed 1 hr. with 80 \,
     cc. POCl3, evaporated in vacuo, the residue poured into ice-water, the solution
     neutralized with NH4OH, extracted with Et2O, the extract dried (Na2SO4) and the
     Et2O evaporated gave the 4-Cl derivative of I, m. 160^{\circ} (163^{\circ} from
     EtOH). This (1.6 g.) heated 6 hrs. at 130° in a sealed tube with
     10 cc. EtOH saturated with NH3, the mixture cooled, the precipitate filtered
off and
     washed with EtOH gave pure title compound, m. 241°; HCl salt, m.
     270°. The starting EtCOCH(p-ClC6H4)CO2Et was prepared by
     condensation of EtCO2Et with p-ClC6H4CH2CN (b14 138-9°), convertion
     of the resulting nitrile (m. 52°) to the corresponding ethyl
     iminoester, and careful hydrolysis of the latter.
ΙT
     55694-06-9P, Pyrimidine, 2-amino-4-chloro-5-(p-chlorophenyl)-6-
     ethyl-
     RL: PREP (Preparation)
        (preparation of)
RN
     55694-06-9 CAPLUS
CN
     2-Pyrimidinamine, 4-chloro-5-(4-chlorophenyl)-6-ethyl- (9CI) (CA INDEX
     NAME)
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L12 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN AN 1957:91119 CAPLUS DN 51:91119 OREF 51:16569b-d TIPyrimidines INJacob, Robert M. Societe des usines chimiques de Rhone-Poulenc PΑ DTLA Unavailable FAN.CNT 1 PATENT NO. KIND APPLICATION NO. GB 748358 19560502 GB Pyrimidines possessing antimalarial activity are prepared by treating 2-amino-4-chloro-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine or its N-acyl derivs. with an excess of the appropriate amine or amine salt. Thus, 5 g. 2-acetamido-4-chloro-5-(3,4-dichlorophenyl)-6-ethylpyrimidine (I), 14 cc. iso-PrNH2, and 14 cc. EtOH heated 6 hrs. in a sealed tube at $180-5^{\circ}$, cooled, filtered, and recrystd. from EtOH yield 3.5 g. 2-amino-4-isopropylamino-5-(3,4-dichlorophenyl)-6-ethylpyrimidine, m. 193°. Similarly Me2NH is bubbled into a suspension of I in (CH2OH)2 to give the corresponding 4-dimethylamino derivative, m. 203° (from EtOH). ΙT 100124-03-6, Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6ethyl-(amination of) RN 100124-03-6 CAPLUS Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI) CN INDEX NAME)

L12 ANSWER 46 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1957:91117 CAPLUS

DN 51:91117

OREF 51:16568e-g

TI Pyrimidine derivatives

PA Burroughs, Wellcome & Co. (U.S.A.) Inc.; Wellcome Foundation Ltd.

DT Patent

LA Unavailable

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI GB 749051 19560516 GB

AΒ An alternative method for the preparation of a compound useful in malaria treatment, 2,4-diamino-5-p-chlorophenyl-6-ethylpyrimidine (I), from 2-amino-4-hydroxy-5-p-chlorophenyl-6-ethyldihydropyrimidine (II) is given. Thus when 5.0 g. II, prepared as in Brit. 734,842 (cf. C.A. 50, 7883b), and 12.0 g. S were powdered, mixed, and heated at $190-210^\circ$ until H2S evolution ceased (about 3 hrs.), and the excess S was extracted with CS2, the residue dissolved in NaOH, and precipitated with HOAc, 3.5 g. dehydrogenated II (III), m. 271°, on repptn. from NaOH with HOAc, resulted. A mixture of 10 g. III. 25 g. P2S5, and 70 ml. tetrahydronaphthalene heated at $170-5^{\circ}$ 2 hrs. cooled, diluted with petr. ether, the precipitate dissolved in 200 ml. H2O and 50 ml. concentrated NH4OH, clarified with C, and repptd. with excess glacial HOAc gave 5.1 g. 4-mercapto analog (IV) of III. Then 2.5 g. IV in 50 ml. 30% alc. NH3 heated in a bomb at 180° for 16 hrs., evaporated to dryness, washed with dilute NaOH, and filtered gave 1.2 g. I, m. 235°. Longer heating or higher temperature (190°) increased yield. Treating III with POCl3 to give the 4-chloro derivative with subsequent bomb reaction with alc. ammonia also gave I.

IT 55694-06-9P, Pyrimidine, 2-amino-4-chloro-5-(p-chlorophenyl)-6-ethyl-

RL: PREP (Preparation)

(preparation of)

RN 55694-06-9 CAPLUS

CN 2-Pyrimidinamine, 4-chloro-5-(4-chlorophenyl)-6-ethyl- (9CI) (CA INDEX NAME)

L12 ANSWER 47 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN 1957:52170 CAPLUS ΑN 51:52170 DN OREF 51:9715h-i,9716a-b Pyrimidine derivatives PΑ Societe des usines chimiques de Rhone-Poulenc DTLA Unavailable FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ------_____ GB 755997 PΙ 19560829 GB AΒ Therapeutically active pyrimidines are prepared by treatment of guanidine (I) with 3,4-Cl2C6H3CH(COEt)CO2Et (II), followed by N-acylation. Thus 18.7 g. I carbonate is gradually added to 70 cc. 20% oleum at 0°, followed by the addition, at -10° to -20° , of 30 g. II, the mixture then warmed 2 hrs. at 50-55°, cooled, run into cold aqueous Na2CO3 solution, and the product that separates filtered off and purified by precipitation with acid from aqueous alkaline, yielding 22.5 g. 2-amino-4-hydroxy-5-(3,4dichlorophenyl)-6-ethylpyrimidine (III), m. about 180-90°, resolidifying, and remelting at about 230-40°. A mixture of 10 g. III, 8 cc. Ac2O, and 40 cc. dry pyridine refluxed 2 hrs., concentrated in vacuo, and the residue treated with aqueous HCl gives 10.3 g. 2-AcNH analog (IV) of III, m. 250°. IV treated with 8 cc. POCl3 1 hr. at 55-60°, then diluted with ice and NH3, gives 10.8 g. 2-acetamido-4-chloro-5-(3,4dichlorophenyl)-6-ethylpyrimidine (V), m. 200°, hydrolyzed by NaOH in hot EtOH to the 2-H2N compound, m. 166°. II, b0.2 123-30°, is prepared by alcoholysis of 3,4-Cl2C6H3CH(COEt)CN (VI), m. 106°, prepared by condensation of EtCO2Et with 3,4-Cl2C6H3CH2CN in the presence of alkali. 100124-03-6P, Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-ΙT 6-ethyl- 106472-60-0P, Pyrimidine, 2-acetamido-4-chloro-5-(3,4dichlorophenyl)-6-ethyl-RL: PREP (Preparation) (preparation of) RN 100124-03-6 CAPLUS CN Pyrimidine, 2-amino-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI) (CA INDEX NAME)

RN 106472-60-0 CAPLUS
CN Pyrimidine, 2-acetamido-4-chloro-5-(3,4-dichlorophenyl)-6-ethyl- (6CI)
(CA INDEX NAME)

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ANSWER 48 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
L12
ΑN
     1955:65047
                 CAPLUS
DN
     49:65047
OREF 49:12545f-i,12546a-b
     Thioethers and esters and their salts
     Cilag Ltd.
DT
     Patent
LA
     Unavailable
FAN.CNT 1
     PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                                              -----
PΙ
     GB 718322
                                  19541110
                                              GB 1952-19453
                                                                       19520731
AB
     Products having good bactericidal and vermicidal properties have been
     prepared with the general formula 2,4,5-HO(Y)ZC6H2SR where Y is a hydroxy or
     an amino group, Z a H atom, a sulfonic acid or sulfonic acid salt, and R
     an alkyl, hydroxyalkyl, carboxyalkyl, carbamidoalkyl, aminoalkyl, etc.,
     group. The alkyl radical may be interrupted one or more times in the
     chain by O atoms, NH, or N-alkyl groups. The latter may in turn be linked
     to aryl residues which may contain solubilizing groups such as amino,
     sulfonic acid, hydroxy, or carboxyl groups. R may also be an acyl or
     aroyl radical with solubilizing groups or a carbamyl, N-alkyl,
     N, N-dialkylcarbamyl, or a pyrimidyl group, or salts of these compds.
     Thus, to 4.05~\mathrm{g}. of Na in 250~\mathrm{cc}. of absolute EtOH, 25~\mathrm{g}. 2,4-(\mathrm{HO})\,2\mathrm{C}6\mathrm{H}3\mathrm{SH} is
     added to produce a clear solution of the thiol Na salt. After the addition of
     25 g. of BuBr and heating on a steam bath for 3 h. EtOH is distilled off and
     the residue taken up in ether. The ethereal solution is washed with water,
     dried, and the ether distilled yielding 27.4 g., 2,4-(HO) 2C6H3SR (I) (R =
     Bu), b0.01 120°. I is a colorless oil, insol. in water, dilute HCl,
     and petr. ether, readily soluble in dilute NaOH, and miscible with EtOH,
     dioxane, acetic ester, ether, CHC13 and benzene. Other I prepared are (R,
     b.p./mm. given): Me2CHCH2, 113-15°/0.06; BuOCH2CH2,
     144-5°/0.08; iso-Am, 120-2°/ 0.01; n-C6H13,
     126°/0.07; PhCH2, 140-5°/0.002 (m. 86-7°); Bz, -, (m.
     136-7^{\circ}); p-O2NC6H4CO, - (m. 173-6°); p-H2NC6H4CO, - (m.
     210-11°); EtO2CCH2, 131-2°/0.04: HO2CCH2 (II). - (m.
     99-100°) 4,2-HOC6H3.S.CH2.CO.O.Pb.O.m. 175°, is prepared from II) HOCH2CH2CH2CH2, 168^\circ/0.04; PhOCH2CH2, - (m. 106-8^\circ);
     PhoCH2CH2OCH2CH2, 187-8° (m. 68-9°); 4,6-dimethyl-2-
     pyrimidyl, - (m. 191-3°); di-Et carbamate, - (m. 149-50°);
     4-HO2CC6H4OCH2CH2OCH2CH2, - (m. 76-8°); Et2NCH2CH2, - (Reinecke
     salt, m. 120°); H2NCONHCH2, - (m. 110°) also prepared were the
     following 2,4-HO(H2N)C6H3SR (R, m.p. given): PhOCH2CH2CH2CH2,
     174-6°; Et2NCH2CH2, - (Reinecke salt, m. 175°); Bu,
     .91°; H2NCONHCH2, 150-2°.
ΙT
     55694-06-9P, Pyrimidine, 2-amino-4-chloro-5-(p-chlorophenyl)-6-
     ethyl- 100716-90-3P, Pyrimidine, 2-acetamido-4-chloro-5-(p-
     chlorophenyl)-6-ethyl-
     RL: PREP (Preparation)
        (preparation of)
RN
     55694-06-9 CAPLUS
     2-Pyrimidinamine, 4-chloro-5-(4-chlorophenyl)-6-ethyl- (9CI) (CA INDEX
CN .
     NAME)
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RN 100716-90-3 CAPLUS
CN Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl- (6CI) (CA INDEX NAME)

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L12 ANSWER 49 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     1955:36197 CAPLUS
DN
     49:36197
OREF 49:7007c-e.
     Dehalogenation of halo-substituted aminopyrimidines
ΙN
     Kaiser, Wilhelm; Grundmann, Christoph
PΑ
     DEHYDAG Deutsche Hydrierwerke G. m. b. H.
DT
     Patent
LA
     Unavailable
FAN.CNT 1
     PATENT NO.
                          KIND
                                 DATE
                                              APPLICATION NO.
PΙ
     DE 915337
                                 19540719
                                           DE 1944-D4541
                                                                      19441010
AΒ
     The dehalogenation is effected by treating the halo-substituted
     aminopyrimidines in an NH3 atmospheric, possibly under pressure, with Zn dust
in
     the presence of carboxylic amides which are liquid under the reaction
     conditions. A mixture of 2-Amino-4,6-dichloropyrimidine 200, Zn dust 300,
     and HCONH2 1000 parts by weight is heated in a NH3 atmospheric with stirring
     at 100°, then triturated with water 7500 parts and filtered off;
     the filtrate gives on alkalinization 2-aminopyrimidine (I) 87 parts (75%),
     m. 127-8° (from iso-PrOH). I is also obtained from 2-amino-4-chloropyrimidine. 2-Amino-G-methylpyrimidine is similarly
     prepared from 2-amino-4-chloro-6-methylpyrimidine.
IT
     100716-90-3P, Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-
     6-ethyl-
     RL: PREP (Preparation)
        (preparation of)
RN
     100716-90-3 CAPLUS
     Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl- (6CI)
CN
     INDEX NAME)
```

L12 ANSWER 50 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1955:36196 CAPLUS

DN 49:36196

OREF 49:7007a-c

TI 2,4-Diamino-5-(4-chlorophenyl)-6-ethylpyrimidine

IN Jacob, Robert M.

PA Societe des usines chimiques de Rhone-Poulenc

DT Patent

LA Unavailable

FAN.CNT 1

PΤ

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2680740 19540608 US
DE 1079056 DE

AB A compound having antimalarial properties is obtained by a synthesis consisting of (1) condensing guanidine with p-ClC6H4CH(COEt)CO2Et (I) in 15-40% oleum; (2) chlorinating the 2-amino-4-hydroxy-5-(4-chlorophenyl)-6-ethylpyrimidine (II) so obtained to the 4-Cl analog (III); and (3) treating the III with NH3 to obtain the desired 2,4-diamino-5-(4-chlorophenyl)-6-ethylpyrimidine (IV). Thus, 10.8 g. guanidine sulfate is added to 43 cc. 20% oleum at 0°, then 24 g. I, b0.15, 126-30°, the mix heated 1 hr. at 80°, the solution poured onto ice, and the precipitate taken up in 200 cc. H2O and 30 cc. 36° B.acte.e. caustic; acidification with HOAc gives II, m. 250° (from EtOH). II (11.5 g.) refluxed 1 hr. with 80 cc. POCl3, the product dissolved in water, neutralized with NH3 and extracted with ether gives III, m. 163° (from EtOH). III (1.6 g.) heated 6 hrs. at 130° in a sealed tube

with 10 cc. EtOH saturated with NH3 gives on cooling IV, m. 241°.

1T 55694-06-9P, Pyrimidine, 2-amino-4-chloro-5-(p-chlorophenyl)-6-ethyl- 100716-90-3P, Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl-

RL: PREP (Preparation)

(preparation of)

RN 55694-06-9 CAPLUS

CN 2-Pyrimidinamine, 4-chloro-5-(4-chlorophenyl)-6-ethyl- (9CI) (CA INDEX NAME)

RN 100716-90-3 CAPLUS

CN Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl- (6CI) (CA INDEX NAME)

L12 ANSWER 51 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1954:71932 CAPLUS

DN 48:71932

OREF 48:12813a-d

TI Pyrimidine derivatives

IN Jacob, Robert M.; Liakhoff, Leonide

PA Societe des usines chimiques de Rhone-Poulenc

DT Patent

LA Unavailable

FAN. CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI DE 899656 19531214 DE

AB Amebicides (I) where A indicates a bivalent aliphatic radical with 2-6 C atoms, are prepared by condensing 2-amino-4-chloro-5-(p-chlorophenyl)-6-ethylpyrimidine (II) or the corresponding 2-acetamido derivative (III) with a diamine H2NANH2, preferably in a 2:1 molar ratio in the presence of a solvent such as PhOH (IV) and under heating. When III is used, the acetamido group is hydrolyzed after the condensation reaction. A mixture of II 13.4 g., m. 163°, 95% H2NCH2CH2NH2 1.58 g., and IV 30 g. is refluxed for 1 hr., the solution poured into dilute aqueous NaOH, and the precipitate

filtered off, washed with water, and dried to give I (A = CH2CH2) 14 g., m. $352-3^{\circ}$. Similarly are prepared the following I (A given): (CH2)4, m. 226° ; (CH2)6, m. 195° , solidifying remelting at $215-16^{\circ}$ (from EtOH).

IT 55694-06-9, Pyrimidine, 2-amino-4-chloro-5-(p-chlorophenyl)-6-ethyl- 100716-90-3, Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl- (reaction with diamines)

RN 55694-06-9 CAPLUS

CN 2-Pyrimidinamine, 4-chloro-5-(4-chlorophenyl)-6-ethyl- (9CI) (CA INDEX NAME)

RN 100716-90-3 CAPLUS

CN Pyrimidine, 2-acetamido-4-chloro-5-(p-chlorophenyl)-6-ethyl- (6CI) (CA INDEX NAME)

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L12
     ANSWER 52 OF 52 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     1954:18367 CAPLUS
     48:18367
DN
OREF 48:3369g-i,3370a-c
     Synthesis of 5-phenyl-4,6-dimethyl-2-pyrimidinol and derivatives from the
     cyclization of urea with 3-phenyl-2,4-pentanedione
ΑU
     Hauser, Charles R.; Manyik, Robert M.
CS
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     CASREACT 48:18367
AΒ
     Stirring 0.4 mole PhCH2Ac, 0.8 mole Ac2O, and 0.12 mole p-MeC6H4SO3H 5
     min., saturation with BF3 3-4 hrs. at 0-10^{\circ}, warming to room temperature
     during 3 hrs., refluxing 1 hr. with 1.5 moles NaOAc in 500 cc. H2O, and
     ligroine extraction gave 63% PhCHAc2, m. 58.5-9.5°. Acylation of 0.22
     mole Me2CO with PhCH2CO2Et by the NaNH2 method (C.A. 40, 557.8) gave 36%
     PhCH2COCH2Ac, b. 150-3°. Refluxing 0.01 mole PhCHAc2, 0.016 mole
     urea, 0.012 mole concentrated HCl, and 80 cc. EtOH 10 hrs., cooling, and
addition
     of Et2O gave a precipitate of 89% HCl salt (I) of 4,6-dimethyl-5-phenyl-2-
     pyrimidinol, m. 245° (decomposition); free base, m. 241-2.5°.
     Similarly prepared in 24% yield, 4,6-dimethyl-5-phenyl-2-pyrimidinethiol, m.
     225.5-6° (decomposition) in a sealed tube (HCl salt, m. 241°);
     mixing 0.01 mole PhCHAc2, 0.015 mole thiourea, 1 cc. concentrated HCl, and 15
     cc. MeOH, addition of 2.7 cc. HCl after 20 hrs., and letting stand 4 days
     gave a better yield (0.95 g.). Refluxing 0.16 mole I and 1.2 moles POC13
     10 hrs., distillation of the excess POCl3, and addition to ice gave 85%
     2-chloro-4,6-dimethyl-5-phenylpyrimidine (II), m. 122.5-4°.
     2-Chloro-4,6-dimethylpyrimidine (82% crude yield, from
     4,6-dimethyl-2-pyrimidinol), b13 100-2.5°. Hydrogenation of II in
     HOAc with 1 mole NaOAc 3 hrs. over 5% Pd-C at 70° and 15 lb. H/sq.
     in. gave 81% 4,6-dimethyl-5-phenylpyrimidine (III), b25 157-9°,
     b7.5 130-1°, m. 61-3.5°; picrate, m. 152-3.5°.
     4,6-Dimethylpyrimidine, (45%, prepared similarly), b. 157-61°.
     Stirring 0.11 g. atom KNH2 and 0.05 mole III in Et20 1 hr. and stirring 1
     hr. more with 0.06 mole MeOBz gave 36% 4-phenacyl-5-phenyl-6-
     methylpyrimidine-HCl, m. 180°; picrate, m. 197-8°.
     4-Phenacyl-6-methylpyrimidine (35%), m. 69-9.5°; picrate, m.
     183-3.5°. Heating 3.27 g. II and 40 cc. MeOH (saturated with NH3 at
     0°) 23 hrs. at 150° gave 91% 2-amino-4,6-dimethyl-5-
     phenylpyrimidine, m. 180-1°; picrate, m. 242° (decomposition).
     Slow heating of 0.01 mole II, 0.025 mole Et2N(CH2)3CHMeNH2 (Noval diamine)
     and 1 g. PhOH to 110° and refluxing 2 hrs. gave 44%
     2-(4-diethylamino-1-methylbutylamino)-4,6-dimethyl-5-phenylpyrimidine, b8
     235-8°; dipicrate, m. 165.5-6.5°. Heating 0.013 mole III,
     0.0128 mole p-H2NC6H4SO2NH2, and 0.019 mole anhydrous K2CO3 1 hr. at
     190°, refluxing 1 hr. with 10 g. PhOH, then with 20 cc. 2N NaOH,
     and neutralization of the filtrate gave 49% 2-sulfanilamido-4,6-dimethyl-5-
     phenylpyrimidine, m. 283-5°.
     6333-65-9P, 1,4-Pentanediamine, N4-(4,6-dimethyl-5-phenyl-2-
     pyrimidinyl)-N1,N1-diethyl- 501356-16-7P, Pyrimidine,
     2-amino-4,6-dimethyl-5-phenyl- 859208-57-4P, Pyrimidine,
     2-amino-4,6-dimethyl-5-phenyl-, picrate 861814-24-6P,
     Sulfanilamide, N1-(4,6-dimethyl-5-phenyl-2-pyrimidinyl)-
     RL: PREP (Preparation)
        (preparation of)
RN
     6333-65-9 CAPLUS
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Pyrimidine, 2-[[4-(diethylamino)-1-methylbutyl]amino]-4,6-dimethyl-5-

CN

phenyl- (8CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \mid \\ \text{Et}_2 \text{N-} \text{(CH}_2)_3 - \text{CH-} \text{NH} \\ \downarrow \\ \text{N} \\ \downarrow \\ \text{N} \\ \text{Ph} \end{array} \\ \begin{array}{c} \text{Me} \\ \text{Ph} \\ \text{Me} \\ \end{array}$$

RN 501356-16-7 CAPLUS CN 2-Pyrimidinamine, 4,6-dimethyl-5-phenyl- (9CI) (CA INDEX NAME)

RN 859208-57-4 CAPLUS CN INDEX NAME NOT YET ASSIGNED

CM 1

CRN 501356-16-7 CMF C12 H13 N3

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

RN 861814-24-6 CAPLUS

CN Sulfanilamide, N1-(4,6-dimethyl-5-phenyl-2-pyrimidinyl)- (5CI) (CA INDEX NAME)

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 274.51 453.57

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

CA SUBSCRIBER PRICE ENTRY SESSION
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